Strings of the string

OIL BOIS DE ROSE CAYENNE LINALOOL BOIS DE ROSE OIL BOIS DE ROSE BRAZILIAN

Embodying proven quality, derived from choice sources and carrying the UNGERER laboratory approval—such is the Ungerer Bois de Rose pedigree. True to our tradition of maintained quality in all grades at honest prices, UNGERER Bois de Rose group easily merits your early adoption.

INGERER & Co.

13-15 West 20th Street, NEW YORK

SO APS DES TS TS ES SO APS COLEMENTS OF STREET SPECIAL TREES OF SUPPLIES OF SU

AMERICA'S OLDEST MANUFACTURER OF PYRETHRUM PRODUCTS



IS YOUR GUARANTEE OF MAXIMUM KILLING POWER

MURNICK SPECIALTIES

MOTHPROOFING CONCENTRATE

Oil soluble, odorless, stainless, nonpoisonous. Tests indicate it is one of the most effective mothproofing agents giving complete protection from moth damage for one year.

RED SQUILL

POWDER-PASTE-EXTRACT—Sure death to rodents, non-toxic to humans and lower animals; chemically and physiologically assayed to maintain high toxicity; supplied in forms most adaptable to your requirements.

ROACH POWDER

A laboratory tested and consumer proven formula incorporating "Murnick" Pyrethrum Powder of the finest quality. It is properly milled and compounded to provide the most effective Roach Killer available.

CIMICIDE

A non-poisonous bed bug insecticide of organic origin in concentrated for Cimicide quickly penetrates, dissolving the eggs and killing the embryo. It has a very high toxicity and quick killing power on bed bugs.

Write For Samples and Literature

UR seventy years experience in milling and processing crude and botanical drugs coupled with our modern production equipment and exacting laboratory control enables us to bring you these fine products.

"MURNICK" Pyrethrum Extract

—Guaranteed to contain 2.00 grams total Pyrethrins per 100 C.C. equivalent to 2.4% Pyrethrins by weight. Our process produces a clear stable Extract of high toxicity. Our careful control assures you uniformity in every gallon. When your products are based upon "Murnick" Pyrethrum Extract, you know your customers will be pleased.

"Murnick" Pyrethrum Powder— Guaranteed 0.9% total Pyrethrins and milled to a degree of fineness most ideal for dusting purposes.

"Murnick" Pyrethrum Ground for Percolation—Guaranteed to contain 0.9% total Pyrethrins and properly milled for complete and rapid extraction.

MANUFACTURER'S AGENTS WANTED. An excellent opportunity is offered to represent us exclusively in certain territories. If you are interested, write at once giving us all particulars regarding the number of salesmen employed, territory covered and manufacturers you now represent.

We are quoting attractive prices for immediate and future delivery. Guaranteed standardized uniform quality based on the Seil method of analysis.

Drug Importers and Millers-Manufacturing Chemists

MURRAY & NICKELL MFG. CO. 2608 - 28 ARTHINGTON ST. CHICAGO

Fuld "Thirty-sixers" are Quick

on the Draw! The neutral chemical cleaner for floors, which out-performs all soap cleaners. Gives streakless cleaning and a lustrous film that fortifies against wear. Harmlessly neutral in concentration or dilution.



Smart prospectors armed with Fuld products, are never caught slow on the draw in defending their claims. The only time Fuld "Thirty-sixers" "put 'em up," they "put 'em up" under THEIR OWN LABEL, with Fuld quality behind them.



WHAT FULD MAKES for the LEADERS

LIQUID CLEANERS

Pine Scrub Soap Liquid Scrubbing Compound Sassafras Scrub Soap Floor Bleach

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Urinal Strainers Wall Containers Soap Dispensers

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LIQUID DEODORANTS

Chlorozif Forma Chloro Sprays Theatre Sprays Pine Deodorant Drip Machine Fluid LIQUID and BASE SOAPS

Liquid Hand Soaps

(All percentages 10 to 40%) Shampoos Cocoanut Oil Base Soaps



BALTIMORE.



BULK or packaged under PRIVATE LABEL

MARYLAND

OIL and SOFT SOAP All Percentage Oil Soaps Jelly Soaps

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OLISHES
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Metal Polishes
(Liquid, Paste & Powdered)
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Furniture Cream
Furniture Polish
Floor Oil
Silver Pastes and Creams

PLUMBING SPECIALTIES

Drain Pipe Cleaners
Liquid & Powdered Bowl
Cleaners
Tile & Enamel Cleaners
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DEODORANT BLOCKS

and CRYSTALS Urinal Blocks
Deodorant Blocks
2 to 40 oz. sizes
Deodorant Crystals



valite

ONEERED FOR NEARLY 50 YEARS

CAUSTIC SODA

HIGHEST GRADE (ELECTROLYTIC)

FLAKE, SOLID OR LIQUID FORM IN EITHER

CARBON TETRACHLORIDE REDISTILLED WATER-WHITE

SUPPLIED ALSO IN COMBINATION WITH OTHER SOLVENTS TO MEET
INDIVIDUAL REQUIREMENTS

EARLIEST PRODUCTION IN THIS COUNTRY

TRI-SODIUM PHOSPHATE

FIRST PRODUCER OF A FREE-FLOWING AND NON-CAKING PRODUCT NATION-AND NON-CAKING PROBUCT NATION-ALLY KNOWN FOR ITS UNIFORM QUALITY

TETRA SODIUM PYRO PHOSPHATE

AN OPPORTUNITY TO SUBMIT SAMPLES AND QUOTATIONS IS SOLICITED



WARNER CHEMICAL COMPANY

Pioneer Producers 1886

CHRYSLER BUILDING 155 EAST SUPERIOR STREET, CHICAGO

NEW YORK CITY 70 RICKARD STREET, SAN FRANCISCO

CHLORINE PRODUCTS. WESTVACO

OAP

Volume XII Number 9

Contents

• Editorials	23
Soap Advertising	25
Babassu Oil By Margaret J. Hausman	28
Soap Dispenser Patents By Dr. Joseph Rossman	32
• Silicate Soaps	65
Insecticide Tests Compared By A. Edison Badertscher	96
Auto Polish By Ralph H. Auch	98
• Insecticide and Germicide Patents Reviewed By Dr. R. C. Roark	102
Synthetic Waxes By Charles S. Glickman	105
Contracts Awarded	53
New Trademarks	55
Raw Material Markets	59
Raw Material Prices	61
Products and Processes	69
New Equipment	75
New Patents	77
Classified Advertising	139

Advertisers' Index 148

September, 1936



SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 79. Production Section begins on page 67.



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REATER sales of Formaldehyde preparations such as disinfectant, antiseptic and deodorant sprays, cavity fluids, etc. are frequently limited by the inherently disagreeable odor of the Formaldehyde itself. To overcome this difficulty, the Felton Chemical Co. has developed a line of special aromatics . . . called FORMAR-

OMES, which neutralize the Formaldehyde odor and impart an agreeable, pleasant scent.

FORMAROMES — SERIES A for full strength Formaldehyde preparations.

FORMAROMES — SERIES B

for weaker Formaldehyde solutions.

WRITE FOR SAMPLES



AND QUOTATIONS

FELTON CHEMICAL COMPANY Inc

Monufactures of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUMES OILS, ARTIFICIAL FLOWER and FLAVOR OIL

603 IOHNSON AVE., BROOKLYN, N. Y.

Boston, Mass. Philadelphia, Pa. Sandusky, Ohio Chicago, III. St. Louis, Mo. New Orleans, Lo. Les Angeles, Chiff. San Francisco 80 Boyiston St. 200 Sc. 12th St. 1468 W. Market St. 1200 N. Ashland Ave. 245 Union Bivd. Balter Bidg. 515 S. Fairfax Ave. 512 Washington St.

TRY 3% ADDED TO YOUR ROSE CREAM PERFUME.

NOW YOU MAY OBTAIN THE LIFT AND PENETRATION THRU THE CREAM WHICH THE OILS AND WAXES HAVE HERETO-FORE SUPPRESSED.



A new

PRODUCT
THAT ADDS TO THE
ROSE PERFUME

- • • -----

TRY 2% ADDED TO YOUR ROSE POWDER PERFUME FOR BETTER LIFT AND FRAGRANCE.



BRANCHES

ATLANTA 284 MARIETTA ST., N.W.

BOSTON LITTLE BLDG., 84 BOYLSTON ST.

CHICAGO 205 WEST WACKER DRIVE

DIMETHYL PHENACETAL

A New Chemical that - - -Adds Fresh ROSE Note

Perfumers and chemists will find this new chemical of unusual power to expand the ROSE note in your perfume creations.

The use of from 2% to 5% of Dimethyl Phenacetal will develop a rose quality that is remarkable. It adds that fresh subtle flowery, true to nature fragrance, so essential in floral perfumes.

This is another triumph for the fine research work done in the laboratory of Aromatic Products, Inc., and we suggest you make the most complete tests immediately.

AROHATIC PRODUCTS DROUCTS STANFORD, CONN. There is No Substitute for Experience



P.Q. SILICATE SERVICE for your problem

P.Q. SILICATE Service is the kind that "rolls up its sleeves and rubs shoulders" when working with you on a technical problem. P.Q. Service Men go right into the plant.

The widest selection of silicates of soda available, plus a soap making

experience that began back in 1831, especially equip us to help you, whether you desire to improve an old established brand or to work up a new product.

Be assured of full cooperation when you consult P. Q. Silicate Head-quarters — any time.

Established 1831

PHILADELPHIA QUARTZ CO.

General Offices and Laboratory: 125 S. Third St., Philadelphia, Pa. Chicago Sales Office: Engineering Bldg. Sold in Canada by National Silicates Ltd., Toronto.

P.Q. WORKS
ANDERSON, IND.
BALTIMORE, MD.
CHESTER, PA.
GARDENVILLE, NY.
KANSAS CITY, KANS.
RAHWAY, N.J.
JT. LOUIS, MO.
UTICA, ILL.

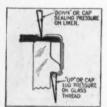






OR readers who may not be mechanically minded we'should like to explain briefly and as non-technically as we can what the Anchor Amerseal lug is and what it will do for you.

This construction was developed and perfected by our engineers and is unique; the scientifically designed lugs exerting the greatest possible sealing force with the least amount of turning effort. This is because the major force is straight down, thereby pressing the liner firmly and uniformly against the sealing surface of the glass at all points around the container (See Diagram). Because of the shape of the lugs, their grip is tight and

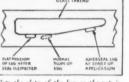


Showing how the downward sealing pressure is effected with the Americal Cap.

non-slipping, yet releases easily. The lugs are so pitched as to put the entire cap under a slight torsional tension when applied. This springlike action holds the cap firmly in place and provides a

working pressure that holds the liner in positive contact with the glass. (See Diagram). Furthermore, excessive friction, wedging or jamming common to other types of

caps is completely avoided.



Now the slope of the lug as the cap is being applied and the flat position when seal is made. This is an exclusive Anchor feature that helps to provide a tension in the cap and greater resilience in sealing.

There are other mechanical advantages to the Anchor Amerseal Cap in the way it effects its seal—but we promised to be non-technical. Just remember

that this lug construction will give you not only the security of mind that comes from assured sealing protection of your product but will make your packages more convenient for consumers and hence more acceptable and more popular. For more complete details, write us. Anchor Cap & Closure Corporation, Long Island City, New York; Toronto, Canada. Branch offices in all principal cities.

Caps by ANCHOR



SIMILAR - Yet DIFFERENT

Every drug manufacturer is familiar with containers like those featured above. They are similar in shape and general outward appearance to others he can buy. Yet if made by Salem, they may be vitally different in a number of important respects . . . the glass itself clearer and more brilliant, the containers more accurate in capacity and finish, stronger and more uniform in quality. The thing you can always be sure of is that Salem containers possess these characteristics, are

dependable and are of a uniformly high quality.

For a great many years we have been making fine glassware for the drug, pharmaceutical and specialty trades. And today we are better equipped than ever to serve their requirements. May we submit samples of those types of glass containers in which you may be interested? Salem Glass Works, Salem, New Jersey. Associated with Capstan Glass Company, Connellsville, Pennsylvania. Branch offices in all principal cities.

CAPSTAN Glass



SOLVAY

CAUSTIC POTASH LIQUOR

Clear, water-white solution. Easy to use. No sludge or sediment. Meets every quality requirement—100% efficient.

Alea

SOLID CAUSTIC POTASH
SOLID CAUSTIC SODA
CAUSTIC SODA LIQUOR
FLAKE CAUSTIC SODA

Ask for descriptive leaflets on

Caustic Potash • Caustic Soda • Soda Ash • Liquid Chlorine • Salt Calcium Chloride • Causticized Ash • Sodium Nitrite • Modified Sodas Ammonium Chloride • Ammonium Bicarbonate • Potassium Carbonate Ortho-dichlorobenzene • Para-dichlorobenzene

SOLVAY SALES CORPORATION

Alkalics and Chemical Products Manufactured by The Solvay Process Company

40 RECTOR STREET

NEW YORK

Boston BRANCH SALES OFFICES: Pittsburgh Charlotte Cincinnati Detroit Indianapolis New York St. Louis Chicago Cleveland Houston Kansas City Philadelphia Syracuse





LIQUID HAND SOAPS

containing YARMOR 302

remove grease, grime, and embedded dirt, leaving hands clean. Yarmor 302 not only loosens the dirt but envelopes each particle with a film so that it is rinsed away easily. These soaps, when properly compounded, promote healing of chapped hands, minor cuts, and abrasions.

Liquid hand soaps containing Yarmor 302 are efficient and economical. They have a pleasing, piney fragrance. Yarmor 302 also helps to prevent liquid hand soaps from becoming rancid.

☆ We supply Yarmor 302 Steam-distilled

Pine Oil to manufacturers of liquid hand soaps.

HERCULES NAVAL STORES



HERCULES POWDER COMPANY

961 Market Street, Wilmington, Delaware

Return the coupon for further information

BRANCH OFFICES

Chicago New York St. Louis Salt Lake City

San Francisco

		_
HERCULES	S POWDER COMPANY, 961 MARKET STREET, WILMINGTON, DELAWA	ARE
	Please send information about the value of Yarmor 3 in liquid hand soaps.	302
Name		
Company		_
Street		
City	State	Q-57



assures uniform quality of

DAVIES-YOUNG

NOW a complete line of sanitary supplies sold thru jobbers only

DISINFECTANTS • INSECTICIDES • DEO-DORANT BLOCKS • POLISHES • WAXES • GYM FINISH • FLOOR SEAL • OIL SOAPS LIOUID SOAPS • COCONUT BASE SOAPS

THE DAVIES-YOUNG SOAP CO.
DAYTON, OHIO

RODUGTS



FOR THE SOAP AND INSECTION OF THE SOAP AND I

SAFROL OIL SASSAFRAS ARTIFICIAL OIL CAMPHOR SASSAFRASSY

000

We offer these products of our own manufacture in cans, drums or carloads.

000

DODGE & OLCOTT COMPANY

180 Varick Street . . . New York

BRANCHES: PHILADELPHIA — BOSTON — CHICAGO — ST. LOUIS — LOS ANGELES

"The integrity of the house is reflected in the quality of its products." - Copyright 1930

It is with pardonable A NEW ADDITION

For years our Rhodinol Coeur, Geranioi Coeur, Linalool Coeur have been the standard by which discriminating buyers judge quality.

Now Phenyl Ethyl Alcohol Coeur joins this merit class.

Don't take our word for its superiority but test it yourself. First for odor. You will find it totally free from any unpleasant impurities.

Then the chemical analysis. This shows no trace of esters, no chlorine, a specific gravity of 1.0230, a





van Ameringen-

Manufacturers and Importers of Aromatic Essentials

AROMATIC CHEMICALS—ESSENTIAL OILS—FLAVORS—PERFUME SPECIALTIES—

pride that we announce to our COEUR series

refractive index of 1.5327 and a solubility of 1 in 50 parts of water. This extremely high solubility is the concluding proof of its extreme purity.

No other commercial product equals those tests.

PHENYL ETHYL ALCOHOL COEUR stands supreme and is offered at the price of the ordinary quality.



315 FOURTH AVENUE, NEW YORK

Chicago

ials

S-

Toronto

Los Angeles

FACTORY, ELIZABETH, N. J.

September, 1936

Say you saw it in SOAP!

17

HEAVY CHEMICALS

Sodium Silicate

Clear and Opalescent - Standard Strengths

Also: NITRE CAKE, SALT CAKE, BARIUM CARBONATE, TRISODIUM PHOSPHATE, SODIUM FLUORIDE, SODIUM SULPHITE, HEAVY ACIDS and INDUSTRIAL CHEMICALS

GENERAL CHEMICAL COMPANY manufacture plus nationwide service makes this not only a logical, but an advantageous source of supply. The Company invites your inquiry which, in your interest as well as ours, should be addressed to the sales office nearest you. We assure you of prompt and intelligent attention.



GENERAL CHEMICAL COMPANY

Home Office: 40 RECTOR ST., NEW YORK (Cable Address; Lycurgus, N.Y.)

Sales Offices: Atlanta, Baltimore, Boston, Buffalo, Charlotte, Chicago, Cleveland, Denver, Kansas City, Los angeles, Minneapolis Philadelphia, Pittsburgh, Providence, San Francisco, St. Louis. In Canada: The Nichols Chemical Co., Ltd., Montreal, Toronto

CAUSTIC SODA

YOUR PRODUCTION WILL BE EASIER TO CONTROL

if you use a caustic soda that can be relied upon to be consistently pure and uniform. Niagara Alkali Company is one of the oldest and most experienced producers of this material in America. The purity and uniformity of its product is visibly indicated by a clean, snow-white color. Its reliability is vouched for by many of the nation's largest users.





Trived COLUMBIA LIQUID CHLORINE

*NEW..ULTRA-MODERN PLANT NOW IN PRODUCTION *LATEST TECHNIQUE

Specify COLUMBIA?

Delivery in single and multiple unit tank cars . . Also in 100 lb. and 150 lb. cylinders.

- * SODA ASH *
- CAUSTIC SODA
- * CALCIUM CHLORIDE
- * Liquid Chlorine

And · of course · the same top standards of purity, uniformity and SERVICE that have distinguished COLUMBIA products for nearly half a century.

THE COLUMBIA ALKALI CORPORATION

EXECUTIVE SALES OFFICES • 30 ROCKEFELLER PLAZA • NEW YORK
Branch Sales Offices • BARBERTON, OHIO • 431.451 ST. CLAIR ST., CHICAGO



THE CREATION of "packaging to sell" has been the business of the Continental Can Company for 31 years—developing original designs more satisfactory from the standpoints of sales, utility, convenience and economy. Continental research includes all the functions of a container.

Do you have a packaging problem? Are you satisfied that your present package does not lack sales appeal?

Do competitive products have a packaging advantage? Is your product properly protected—easily accessible?

Whatever the question: we suggest

that you write, wire or phone for a practical demonstration of our development service.



CONTINENTAL CAN COMPANY

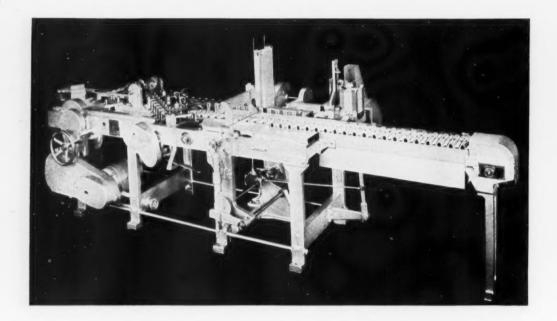
NEW YORK

CHICAGO

SAN FRANCISCO

A Camless Constant Motion Cartoner

The first Cartoning Machine Without a Cam



"A cam is always a compromise". Some machines may never work without cams. It has been held that cartoners were in this class. But that theory is now in the discard. The machine shown above has not a single cam. Without noise or vibration it folds leaflets and inserts them and Pepsodent dentifrice tubes in cartons 200 per minute or more as may be needed.

A CAMLESS CARTONER has been our objective for many years. Some of this was sentiment. We don't like cams. Moreover, we like to do things that "can't be done". But the results justify any motive. When you see a CAMLESS CONSTANT MOTION CARTONER operate you will never be able to "see" any other.

R. A. JONES & COMPANY, INC. P. O. BOX 485 · CINCINNATI, OHIO



THE Robinson-Patman Amendment to the Clayton Act appears to have many manufacturers scared to death. The provisions of the law are such that practically every commercial transaction comes within the purview of the act. That large companies are treading their respective paths with extreme caution is to be expected. They do not know what to expect, but they very definitely fear attracting the attention of the Federal Trade Commission or the ill will of some one who might file a complaint or suit. The fear of the publicity which might attend the filing of such a complaint is readily understandable.

While the Robinson-Patman Amendment, before it was expanded to embrace all types of business transactions, might have had some merit, -which we very sincerely doubt,-the law as it finally went on the statute books, is hopelessly involved, topheavy, and unworkable. We believe that it is going to cause endless confusion and needless trouble, and eventually be declared unconstitutional by the U.S. Supreme Court. For the past month, we have studied the law, and have discussed it with manufacturers. That it puts a dangerous weapon in the hands of the vicious and unscrupulous, is evident. That it invites an era of "commercial ambulance chasing," the likes of which we have never seen, is also evident. That it makes a staff of attorneys the counterpart of every sales organization, and plunges legal technicalities deeper into the heart

of business than ever before, seems apparent. That it gives manufacturers a handy excuse for refusing special prices, discounts, and allowances to a certain class of buyers, does not balance its bad points. Probably it will topple of its own weight.



PROTEST by organized dairy interests has been filed with the Department of State against the admission free of duty and free of processing taxes of babassu oil from Brazil. This oil, because in a long list of edible and soap fatty products it has escaped the punitive taxes which have been placed upon coconut, palm, and other oils and fats, is attracting considerable attention. It is admitted free of duty and other taxes as part of a trade agreement between the United States and Brazil. The attention which the dairy "representatives" in Washington,—the same crowd in fact which forced the high excise taxes on practically all foreign oils for the soap kettle,—are paying this oil, is out of proportion to the present importance of babassu to the American oil and fat producer.

Although babassu may have a potential production equal or greater than coconut, facilities for production, and supplies, today are woefully inadequate when tonnage competition with other oils is considered. Some day, it may be a

large tonnage substitute for coconut, but not today or tomorrow. Consequently, this protest to the State Department appears just a trifle overdone. It has all the ear-marks of a play to the gallery,—to the boys back on the farms who are paying their dues so that the dairy lobby in Washington can continue to get its nice fat salaries.



N a feature article in the New York World-Telegram of the Scripps-Howard newspaper chain, reference was made to the constant shortage of soap in one of the city's public hospitals,-Bellevue Hospital, owned and operated by the City of New York. The nurse who told her story about the horrors of this public institution and the lack of most everything in the way of necessary supplies, described how bars of soap were cut up in small pieces so that there would be enough to go around and so the soap would last longer.

While the City of New York builds playgrounds, new bridges, new streets, erects monuments, and goes through all the motions of a prosperous and progressive community, its public hospitals, or at least its best-known public hospital,—lack plain soap that its patients and its

staff may keep clean.

We have heard this complaint before about city institutions both in New York and elsewhere, and have always been at a loss to understand this penuriousness in the matter of soap, one of the cheapest commodities available and one of the most essential. For some reason or other, many people just hate to spend money for soap,—and apparently most public officials take the same attitude in appropriating money for the same purpose. Can somebody tell us why?



ND while the subject of public appropriations for soap are being discussed, mention might be made of the fact that the City of New York in its 1937 Board of Education budget includes a \$50,000 item for soap and towels for public schools,—the first ever for this purpose. Even though the hospitals of the city may be short on soap, maybe the schools will have some kind of a soap ration in 1937.

In the discussion at the public hearing on this

budget, the president of some civic affairs club, —which is a nice name for a political club, made this striking and enlightening statement: "I'd rather see an honest boy with dirty hands than a criminal with clean hands." If the whole discussion about free soap for the schools was of an equally high and intelligent order as this, we fear for the soap item in the budget.



NHE civil war in Spain already seems to be having its effect on a few raw materials for the soap kettle. Olive oil prices have shot upward abruptly. The market for Spanish essential oils, materially higher, is preparing for almost any kind of development. Sales of thyme, rosemary, and spike are being limited. No shipments are coming out of Spain and there is a question as to just how much oil is being produced there and will be available. In the present conflict, essential oils, always a sideline with the small farmer, are probably just about forgotten. Stocks of Spanish essential oils in the United States are reported as none too large. Shippers of olive oil from Italy, France, Greece, and Africa are not backward in taking advantage of Spain's temporary elimination from the market. Prices for olive oil soaps have already advanced and are likely to go up further. Lucky indeed is the soap maker whose stocks of both olive and the essential oils is sufficient to carry him through for another two or three months.



RICES for soaps generally will advance as a result of the olive oil shortage engendered by the Spanish civil war, states a newspaper story. Maybe somebody should tell this newspaper the truth about the excise taxes on coconut oil, palm oil, tallow, and other fats,—and how small a part olive oil plays in the tonnage of soap raw materials,—and how the advances in soap prices generally which are bound to come, have only the remotest connection with the Spanish revolution. It might also be pointed out to the public that not the Spaniards, but our own Congress is responsible for increasing the raw material cost of soaps about one hundred per cent in the past vear or two.

SOAP ADVERTISING

Whether the criticism is humorous or serious, justified or not, soap advertising is "on the pan." Is there an answer to this criticism?

OAP advertising needs to be defended by somebody. Advertising copy for various and sundry toilet and laundry soaps, shampoos, and the like seems to be the object of attack, both public and private. Mostly, the attacks are in the form of jibes and intended to be funny. A few have been serious and heavy, a medical opinion thrown in here and there. Among the smart voung squirts who make up a very appreciable part of the collegiate population of this seemingly harebrained nation, soap advertising copy supplies ready subjects for banter. All in all, soap advertising has been,-and still is,-very distinctly on the pan. That it lends itself so readily to the panning process is beside the point. The attack comes from writers, advertising men, and the general public. If there is an attack. somebody should rush to the defense,-if there is a defense.

Toilet soap advertising has been the chief target for these attackers. They, both in print and those who broadcast their pieces by word of mouth, maintain that toilet soap advertising is on the whole grossly exaggerated, misleading, and untrue. Whether by implication or by bluntly spoken words, they indict the copywriters as fakers who deliberately foist a lot of sweetsounding twaddle on the dear old public, when they,the copywriters,-know full well that what they write is far removed from the facts. They maintain that much soap advertising copy is an insult to the intelligence of thinking people, and that some of it is positively disgusting. They hold that a halo has been drawn about a branded cake of soap, that it has been endowed with supernatural powers,—and that this is all just so much bunk, because a bar of soap is just a bar of soap. They further point out that the scientific search of the soap industry has not been to produce a better bar of soap. but that it has been a search by advertising agency copywriters to dig out newer and crazier claims so that they can at least be more fantastic than the latest claims of competitive soaps. And they state that when one soap advertiser hits upon an idea that seems to click,-

and the sales of soap reflect the clicking,—no matter how foolish the idea or the claims which accompany it, the competitors get sore and work up advertisements to make the original idea look silly,—and themselves look foolish.

Even in the hallowed halls of Congress when the oft-shelved Copeland Food and Drug Bill was having one of its several days in court, and there was a possibility that toilet soaps might be classed as cosmetics and suffer accordingly, there seemed to be a suspicion that maybe toilet soaps might not be all that their advertising cracked them up to be. There were those who appeared slightly uncertain on the question of becoming beautiful through the use of a certain soap, or of the ability of every young lady to catch and subjugate for herself a husband by the use of another brand of soap.

The owl-eyed committee of the Senate apparently saw beyond the printed word of the soap advertisements, but for the purpose of law-making, were willing to take the soap advertisers at their word. The fact that some of the soap people did not seem to care much for this idea,—in fact, appeared quite concerned about classifying toilet soaps as cosmetics,—might lead one to believe that even the soapers were a lap or two behind in accepting unsalted all that their advertising copy men had written.

It Has Sold More Soap

To get down to brass tacks in this matter of toilet soap advertising copy is to go quite deeply into the matter of the human mind and the human body. Whether or not the general run of toilet soap copy has been in the public interest,—or against it, remains to be proved,—or at least discussed. For the sake of a defense against the scoffers, it is maintained here that in spite of all the things which have been said about it, soap advertising has accomplished much good,—and has done no harm.—not even to the disappointed women

who tried to become beautiful over night. In the first place, irrespective of its merits from the esthetic point of view, toilet soap advertising has sold soap, and plenty of it during the past ten years, and has made money for the soap manufacturers. In the second place, people are using more toilet soap. From this, the conclusion might be drawn that more people are washing their bodies and doing it more frequently. Right at this point, it should be indicated that the production and sale of toilet soaps have increased at a greater rate during the past ten years than any other type of soap. Forty per cent more toilet soap is being sold today than in 1925. Whether this is a result of generally improved living conditions in the United States, or as a result of toilet soap advertising, or both, cannot, of course, be stated.

In the hustle and bustle of selling toilet soap in competition, the advertising which accomplishes results, is the advertising which is deemed commercially successful. Not too much time is spent in splitting hairs over the copy, that is over the exactness of its claims. To him who would advertise successfully in the intensive competitive fight for soap business, not too much attention can be paid to these minor details such as scientific exactness, strict adherence to proved facts, and misleading implications. It has been a case of shooting with big guns,—striking claims, startling statements,—or being completely overshadowed by competitive advertising. There is no doubt but that the lengths to which some advertising claims have gone, can be traced directly to competitive conditions in the soap industry.

But to return to the reasons which may, or may not justify some of the advertising of toilet soaps which has been so much criticized, - consider the case of Lifebuoy Soap. Of all the soaps which have pulled themselves up to the front of the toilet soap parade in recent years, the case of Lifebuoy has been the most striking. It took a rather daring idea and a more daring execution of the idea to turn the trick. To state that Lifebuoy advertising of B. O. startled the country, is to put it mildly. It shocked to the very marrow that portion of our population which dotes on things esthetic. The idea that the human body unwashed could have an offensive odor was one thing, but to come out flatly in the public press and discuss it in advertising, and tell how to correct it, was another. And then to imply that possibly you, and you, and you, might be afflicted with B. O. and not know it, was the last touch.

Some people predicted when the B. O. campaign started, that it would kill the sale of *Lifebuoy*. Sensitive folks would just not buy it for fear the druggist or somebody else might suspect that they in turn suspected that they might have B. O. But, contrary to predictions, the sale of *Lifebuoy* increased greatly, carrying this soap to the head of the toilet soap parade. Who would suspect that a toilet soap perfumed with cresylic

acid could top the sales of all the lavender, geranium, and other sweet-smelling creations?

Outstanding in the Lifebuoy advertising campaign,and those which have brought forth much comment, both humorous and otherwise,-have been the comic supplement advertisements. The theme of these comic strips has been the same in most cases,-Mary or Sally or Lulu, or whatever her name may be, attends all the dances and gav parties of the vounger set, but, sad to relate is shunned by men and boys alike. These latter, gathered together in groups.—far from Lulu,—whisper and cast furtive glances in the direction of poor Lulu who sits alone and disconsolate in the corner. From the angle at which the males point their noses, one concludes that Lulu does not smell nice,-but from her downcast mien, that she is wholly unaware of this. And then from nowhere up pops her pal, Margie, and noticing that poor Lulu is down in the dumps,-and probably herself getting a whiff of Lulu at the same time,-she diplomatically suggests Lifebuoy. The complete transformation of Lulu is usually shown in the final picture of the comic strip. Lulu free of B. O., rides a wave of popularity with the other sex, the like of which is rarely seen or heard about. If we may judge by the pictures,-by the happy smiles, the rushing and crowding males,-we wonder how it is that Lulu is not injured in the mad scramble. (Maybe she would be safer if she just kept her B. O. and her quiet place in the corner.)

Sex Appeal in Soap Ads

TOILET soap advertising has been built on a foundation of scx appeal.—to be beautiful, to have lovely skin, to avoid offensive odors of the body.—a play to those things which attract the opposite sex. It is apparently sure-fire copy with most human beings, especially with the younger generation. That the copy is such that it is understandable to a ten year old child.—that it is positively infantile, as has been stated,—means that it is going to reach the very stratum of the population which it is intended to reach,—the less educated, the less intelligent sections of the population, if you will,—that portion of the population which withal have bodies that may become odoriferous, and need to be reminded more pointedly of the necessity of keeping clean.

Rather copious criticism has been directed at the beauty claims of toilet soaps. The idea that any soap can make an ugly face beautiful is of course ridiculous. That certain soaps may help to make the skin better to look at, is debatable. However, it is in their sweeping claims of beauty to the users of this or that soap, that the manufacturers have laid themselves wide open to criticism. That the psychological appeal is there to the unthinking or unknowing is quite obvious. To hook up a bar of so-and-so soap with a picture of a beautiful actress, and to state that she uses the soap to keep her skin beautiful, is unquestionably to imply that others

can keep their skins beautiful in like manner. If no implication exists,—then why advertise the soap in this fashion? Of course, it is apparent that only a very minute portion of buyers do believe the advertising literally. Perhaps they hope that they may be able to simulate the beauty of skin of the actress, or perhaps they do not even hope. Maybe there is something in these claims, they reason,—but at any rate, they have to use some kind of toilet soap and as long as this particular soap says that it will make one beautiful,—why not use it? Something like buying a sweepstake ticket,—a very, very long shot with little hope of winning. But be that as it may, beauty claims in soap advertising evidently do induce some kind of a reasoning process which sells soap whether the claims are believed or not.

Going a step beyond the B. O. of *Lifebuoy Soap* is the idea incorporated in advertising for laundering products,—that not only may the body offend in odor, but clothing as well. The recommendation of frequent washing of underwear.—especially ladies "undies" if we may judge by the pictures,—is also to avoid giving off odors which may offend sensitive nostrils. The other appeal of laundry soaps is through their ability to save labor, that they cost less, are easy on the clothes, and give a cleaner, whiter washing job. Of course, these latter points in soap advertising have been used for many a year. It is the B. O. idea, carried over to laundry soap, which is the new note.

"Hokum for the Ad Writer"

SOAP advertising has come in for a panning now and then in *Printers' Ink*,—the last on July 23. Mostly the comments have been of a facetious nature. But now and again, the comments are sarcastic. Witness the reproduction in a recent issue of a report of *Consumers Union* one of the newer advertisements for Woodbury's Facial Soap and its new vitamin ingredient which was headed "The Dawn of a Great Beauty Discovery." The comment on this startling piece of copy was merely a caption which stated sarcastically: "The Dawn of a Great Advertising Campaign". And then this "report" goes on to list as "not acceptable" Woodbury's Facial Soap, Sweetheart Soap, Fairy Floating Soap, Lifebuoy Soap and some others. No reason is given why these well-known soaps are "not acceptable".

The only material comment is on Lifebuoy advertising. This states: "It is hardly necessary to say that B. O., the terrible affliction with which Lifebuoy advertising men try to frighten the public into using their product, is a rarity among those who bathe regularly with water and soap of any kind. Lifebuoy does not, of course, have any special ability to remove B. O.,—except perhaps by substituting another, perhaps worse, odor, L. O., the odor of Lifebuoy itself."

Then a shot is taken at Jergens Violet. "Jergens Violet", says the Jergens Co., "shows you by its transparency what a really fine soap it is." But government

experts say: "Transparency . . . is actually no indication whatever of purity or quality." Such soaps commonly owe their transparency to sugar or other substances which have no value as cleansing agents."

Advertising claims of medicinal soaps are dismissed as untrue. Of the tar soaps, it is stated: "There is no good reason for putting tar into soap, except to furnish hokum for the ad writer. These soaps are generally very expensive. Packer's Tar Soap, for instance, costs about 8 cents an ounce, or about nine times as much as Gondola soap (Gondola floating, a Woolworth private brand) in terms of dry soap."

Soap Advertising in Public Interest?

NOW the question arises, has soap advertising on the whole been in the public interest? There is no doubt but that it has. The vivid and prolific advertising of soap products has encouraged a wider use of all soaps, resulting in greater cleanliness, greater comfort, and a widening of the sense of respectability which goes hand-in-hand with cleanliness. Especially in toilet soaps, the increased use of these undoubtedly has come in part at least as a result of the pressure behind advertising and sales. In spite of the criticism of toilet soap advertising copy that it is exaggerated and misleading, there is no doubt but that it has made thousands upon thousands of people conscious of the virtues of bodily cleanliness, and that it has led these thousands to keep cleaner. If not, what has become of the forty per cent increase in toilet soap consumption of the past ten years?

There is another angle in answering the critics of soap advertising. Through keenly competitive selling has arisen equally competitive advertising. "More for the money" has been a common note in soap advertising. Price reductions have been heralded far and wide. And coincident with this has been an expansion in the value of the soap sold to the public dollar for dollar. Never more than in recent years has the public secured better toilet soaps for little money or more soap per dollar. The volume built up through extensive advertising of soaps has enabled manufacturers to give not only a better quality, but more for the money as well. In short, the public may have been fooled by soap advertising, or they may not have been fooled, but be that as it may, this same public has unquestionably benefitted as a direct result of this advertising.

Textile assistants having wetting, washing, dispersing and emulsifying properties are made by the sulfonation of hydrogenation products boiling above 200° C. obtained from mineral coals or coal tars or their dehydrogenation products. High-molecular constituents such as anthracene, pyridene, etc. may be separated before sulfonation. Pitch fractions boiling above 400° C. may be first extracted with alcohol, carbon disulfide or other solvent. I. G. Farben-ind, A.-G. British Patent No. 441,878.



A cluster of babassu nuts on a Brazilian babassu palm. The exportation of the whole nuts from Brazil is forbidden by law.

Photos Courtesy Irving Herman, Inc., New York.

BABASSU OIL

By Margaret J. Hausman

EW taxes on imported oils and fats have directed the spotlight on babassu oil, the oil from Brazil which most resembles coconut. There are no taxes on babassu oil. It can be imported into the United States free of duty, and it carries no processing tax. Were it available in sufficient tonnage to American soapers, the likelihood exists that it might quickly supplant coconut oil at the soap kettle, inasmuch as coconut, as well as most imported oils and fats, including tallow, are subject to an excise levy of three cents or more. The trouble with babassu is that although the forests of Brazil are said to abound with the trees and thousands of tons of babassu nuts rot on the ground every year. the facilities to crush and ship an ample tonnage for use by the American soap industry do not exist. The potential production of babassu oil is tremendous,probably much greater than coconut, but the present production is very small,-so small that for some time to come babassu cannot make even a small dent in the demand for coconut oil. Nevertheless, among all the oils and fats, the potentialities of babassu stand out in the present situation.

For several years now the soap industry has been

aware of the existence of babassu oil as a potential raw material. The oil is obtained from the kernels of the nut of the palm Orbignya Speciosa a subdivision of the family Attalea, which is very abundant in some parts of Brazil and represents one of the greatest sources of agricultural wealth in many regions of that country. It grows mainly in the states of Maranhao, Amazonas, Para. Piauhy, Ceara, Bahia, Espirito Santo, Sao Paulo, Minas Geraes, Goyas, and Matto Grasso. It appears that no attempts have been made to cultivate the babassu palm elsewhere. It remains doubtful, however, whether the same results could be achieved with the fruit were it produced under different climatic and soil conditions. At the present time Brazil has forbidden, by decrees, the exportation of babassu trees and whole nuts, the object being of course to prevent planting and cultivation elsewhere. Commercial development has centered chiefly in Maranhao. It is estimated that there may be over 200,000,000 babassu trees in this state alone. It is possible that the tree may grow wild in other regions of Brazil, in the states of Pernambuco and Rio de Janeiro under the name of pindoba or indaya. The babassu tree is known in Brazil by other names among which

are bassoba, baguassu, aguassu, uauassu, and guaguassu. The sapoca nut, which is similar in character to the babassu, is found in other parts of South America.

The babassu kernel itself, from which the oil is obtained, is found in a nut which is made up of a pericarp,-a fibrous material; mesocarp,-which contains considerable tannin and starch; and endocarp in which the kernel is embedded. The nuts are borne in bunches or "heads," each palm bearing from two to four of these heads twice a year. Each bunch contains two hundred to six hundred nuts, each nut containing two to six kernels, usually three or four. The kernels, which weigh about three grams each, make up about fifteen per cent of the weight of the nuts. The nuts themselves vary in size and the number which is required to make up a metric ton may range considerably, anywhere from 2.500 to 20,000 nuts being required. The nuts are extremely hard and require a pressure of from 10,000 to 25,000 pounds to burst them. They fall to the ground from June to the end of December, the exact period depending upon weather conditions.

Babassu kernels contain about 65 per cent of oil,

which is obtained in a manner similar to that employed in the preparation of other oils from palm kernels. The preparation of the oil is carried on almost wholly by natives. Attempts have been made to organize the industry but have not met with much success, and today the industry is practically just as it has been for years. The natives gather the fruits which have fallen to the ground, selecting the best nuts to give them the richest product. The dekerneling is done mainly by hand labor performed by women and children who use hand axes. They sit on the ground and work with the axes held in a particular position, producing in the average eighthour working day about ten pounds of kernels. Large quantities of nuts which have fallen to the ground remain uncollected and go to waste. Natives present a difficult labor problem and work only when they need food, or when the price which they are offered in the commercial markets presents an attractive enough incentive for them to exert themselves.

Most of the dekerneling is now done during the crop season,—when the nuts fall from the trees,—as they are more easily handled when they are fresh. If they



There is reported to be hundreds of millions of these giant babassu trees in the forests of Brazil, the potential source of a tremendous production of oil.

are allowed to lie on the ground for any considerable length of time, they get very hard and it is almost impossible to extract the kernels. The kernels are very much cut up when they are obtained by the primitive hand method, and decay sets in quickly, making the nuts moldy and increasing the fatty acid content of the oil obtained from them.

For many years a great deal of effort has been put into the development of some mechanical means for dekerneling babassu nuts. The nuts are so hard, however, that most attempts have been unsuccessful. About five or six years ago a machine was developed in this country which is said to solve the problem of the mechanical separation of the kernels from the nuts.

To obtain the oil, either pressing or extraction with solvents is practicable. When the oil is to be pressed, the kernels are ground, heated, and crushed in hydraulic presses. The press cake and meal generally have a protein content of 20 to 23 per cent and are used for feeding stock.

RUDE babassu oil, which is light amber in color, is used for soap making. It is somewhat similar in chemical composition to coconut oil and palm kernel oil, but has a higher content of lauric acid than these oils. The lauric acid content makes the oil particularly valuable for soap making as it imparts a high saponification value and gives a soap which produces a profuse lather. It is refined to a pale yellow color and sweet odor and in this condition makes a valuable edible product, taking the place of olive and coconut oils. It has been claimed that babassu oil is the best of the oils which can be obtained from many species of palm oil seeds. Babassu oil also has a very high value as a fuel for internal combustion motors of the Diesel and semi-Diesel type. Experts claim that it is superior to crude oil and even refined petroleum.

A comparison of the properties of babassu oil with coconut and palm kernel oils is given in the following table:

	Babassu	Coconut	Palm Kernel
Sp. g. at 100°/15° C.	0.867	0.926	0.873
Saponification Value	242-253	251-263	244-255
Iodine Number	12-13	8-9.6	16-23
R.M.V.	3	6-8	4.8-7
Pol. No.	7	15-18	9.4-11
Melting Point	27°-29° C.	23°-26° C	. 24°-30° C.
Titre	24° C.	20.4°-23.5° C	. 20°-25° C.

The states of Maranhao and Piauhy are the principal export centers. In recent years most of the exportation has been in the hands of a few firms, chiefly Brazilian. The natives never solicit trade but are sought out by the staffs of buyers sent into the interior of Maranhao and Piauhy by the exporting firms. The purchases for export progress in a series of steps. Small traders accumulate small lots and sell these to larger dealers, who in turn trade with the larger firms.

ERMANY used to be Brazil's best customer in babassu oil, purchasing as much as from 20,000 to 25,000 tons annually. Most of this oil was used for margarine manufacture. About 1927, however, when exchange difficulties began to be critical, Germany started to withdraw from the market. Holland and Belgium now buy some quantity of babassu oil and French soap makers are using it in increasing amounts as a substitute for palm kernel oil. Babassu oil has been sold on a commercial scale in this country for only the past two years, and this has been the first year that a report on babassu oil has been included in the annual report of the U. S. Dept. of Commerce.

The future consumption of babassu oil in this country seems to hinge on the ease with which the oil can be made available in commercial quantities. This, in turn, rests on several factors among which is the devising of a machine to crack and handle the nuts in large quantities in some manner which will not break them up and injure the quality of the oil obtained. Another factor which stands in the way of progress in the direction of a great babassu industry is a satisfactory solution to the problem of whether the nuts should be cracked in Brazil and the kernels imported here for crushing, or whether the oil should be prepared in Brazil and shipped as such. The drawback in the first case is that the kernels, having been carelessly obtained, are broken and decompose sooner than sound kernels.

This results generally in an abnormally high free fatty acid content in the oil later obtained. In the second case, the chief trouble is the development of rancidity invariably in transit from Brazil. This gives rise to oils with high free fatty acid content which are not considered desirable by soap makers or any other consumer for that matter. The shipment of the oil itself seems to be out of the question owing to the carelessness in preparation by the natives in Brazil, and the shipment north under conditions which induce the maximum development of rancidity. Other difficulties are encountered in importing the oil as such. It is reported difficult to handle. The most likely solution of the problem if and when babassu production and demand warrant, is the scientific dekerneling of the nuts in Brazil, care being taken to preserve them in transit here, and the extraction of the oil under modern conditions near its point of use.

At the present time the markets in the southern part of Brazil have been absorbing most of the production for home consumption. The development to be looked forward to in bringing back stocks in this country is a saturation of these southern markets in Brazil. At the present time high costs almost preclude imports of babassu oil. Furthermore, the dollar exchange has a certain influence on all prices and products coming from Brazil and right now the dollar has gone down in Brazilian exchange.

N interesting sidelight in the building up of the babassu industry for the benefit of the soap maker lies in the value which is held to exist in the husk. This is supposed to break down into many valuable chemical substances when distilled and vield a residue of fine metallurgical coke. The complete husks make an excellent fuel. B.t.u. value of more than 50 per cent that of good coal being claimed for them. As a matter of fact, the babassu nut first attracted universal interest in 1914 when the shortage of coal led to the use of whole babassu nuts in boilers of Brazilian steamships. Brazilians, however, have long been aware of the versatility of this product and have used it in many ways as far back as they can remember. It has been used in the smoking of rubber in the Amazon valley, excellent disinfectant value being claimed for the smoke as far as the animal life which exists in the rubber latex is concerned.

The husks have been used for fuel in iron foundries in the northern part of Brazil. The oil has also been used for purposes of illumination. In spite of its wide-reaching value, the babassu nut has only been a factor in Brazilian exports since 1914. It appears that babassu coke may solve the problem of iron working in Brazil, which has been greatly retarded for want of a suitable coal supply. This would represent a great step forward for Brazil inasmuch as there are rich supplies of iron ore in that country. Recent federal and state decrees forbid the employment of whole nuts as fuel.

In addition to the value inherent in the husks of the nut, the babassu palm itself serves many purposes. The leaves are used as a roofing and thatching material and for making hats, baskets, and similar things. The sap of the tree is used as a food and for feeding stock. It is also a raw material for the manufacture of a type of sugar. The fibrous material, or pericarp, is used for making cord, brushes, and mats. The mealy mesocarp is also used by the natives as a food, as well as a feed for cattle. The shell of the nut is made into articles for domestic use, such as buttons, and holds promise of being valuable for the manufacture of activated carbons. The trunk of the tree supplies building posts and the bunch stalks yield an excellent fertilizer after they have been allowed to rot. As a matter of fact, no part of this palm is wasted.

Much still remains to be learned about the babassu nut, however, and the oil which is derived from it.

A NUT similar in many respects to the babassu nut, and which yields an oil similar to babassu, coconut, and palm kernel oil, is the cohune nut. This nut is sometimes confused with babassu in the literature. Cohune fruits are borne in bunches which range from 30 to 200 pounds in weight on palms (Attalea cohune) which grow in the rich lowlands in the Southern part of the Yucatan peninsula in Mexico, British and Spanish Honduras. Guatemala, and some other regions. Each palm

bears from 1,000 to 2,000 fruits a year. The matured fruits are 2 or 3 inches in diameter and weigh about 45 or 50 grams. The nut is enclosed in a tough, fibrous layer about 1/8 of an inch thick. This layer contains at least 8 to 10 per cent of oil, and sometimes considerably more. In this respect it is different from the coating on the babassu nut which contains only about 1 per cent of oil. The kernels themselves, from which the oil is obtained, weigh about 5 grams and contain 65 to 70 per cent of a solid white fat which resembles coconut oil in appearance and odor. The nut has an extremely hard shell, less than half an inch thick, which presents a serious obstacle in the way of the commercial development of the cohune oil industry. In the past few years a number of machines have been devised which are purported to accomplish the cracking of the nuts in a satisfactory manner. Machines for separating the nuts from the husks have been developed as well. Considerable quantities of nuts are cracked by hand by the natives of Southern Mexico and Central America. These natives extract the oil from the kernels themselves and use it for edible as well as illuminating and soap-making purposes.

The oil can be obtained by the ordinary methods of expression or solvent extraction. The press cake makes a valuable feedstuff. The shells of the nut are used for fuel. Considerable quantities of the kernels themselves are fed to stock. Some of the kernels are used too in the preparation of sweetmeats.

Despite the value of the oil obtained from cohune kernels, which ranks on a par with coconut and palm kernel oils, commercial exploitation has not advanced to anywhere near the extent that would logically be expected. The chief handicaps here have been lack of sufficient capital actually to get the industry well under way, lack of scientific data about the region in which the palms grow, and other difficulties inherent in the collection of the fruits.

Exports of babassu nuts from Brazil since 1922 are given in tons in the following table:

	Tons		Tons
1922	21,958	1929	8,700
1923	35,281	1930	12,296
1924	18,313	1931	14,212
1925	10,909	1932	8,917
1926	22,687	1933	623
1927	25,977	1934	217
1928	19,266	1935	9,966

Nitonga (Cryptocarya latifolia) nuts from South Africa had an average weight of 4.5 grams and contained 55.4 per cent shell and 44.6 per cent kernel. The oil content was 61.1 per cent in the kernels as received, 64.2 per cent on the dry basis, and 27.3 per cent on the whole nuts. The oil extracted with cold petroleum ether had the following characteristics: m. p. 26.0° C., acid value 56.5, saponification value 213, Wijs iodine value 75.2 and unsaponifiable matter 1.4 per cent.

Liquid Soap Dispensers

Prevention of leakage, theft, waste,—a brief study of the most recent one hundred U. S. patents issued since 1920.

(Part II)

By Dr. Joseph Rossman

THIS is the second of a series of three articles on patented features of liquid soap dispensers. In patents issued for improvements in the details of construction of soap dispensers, much attention has been given to the design of the valve structures in order to prevent leakage which is a common defect. Tamper proof dispensers to prevent mischievous persons draining too much of the soap solution or putting the dispenser out of order by rough handling, have been frequent subject of patents. Some proposals which have been made for the construction of liquid soap dispensers, have been summarized here in the most recent hundred patents which have been granted by the United States.

26. Rose, 1,535,180. April 28, 1925. A liquid dispensing device consists of a receptacle having an exit opening in a resilient member covering the exit opening and having a slit valve therein, the slit remaining normally closed but being capable of opening upon pressure exerted upon a liquid within the receptacle, means for retaining the slit valve over the exit opening, a liquid supply receptacle, a conduit connecting the supply receptacle to the receptacle, a conduit connecting the receptacle with an intermittent pressure exerting device and a device capable of exerting an intermittent pressure upon a liquid within the receptacle.

27. Rose, 1.542,584, June 16, 1925. The object of this invention is to provide a liquid dispensing device in which the valves can be removed and replaced without breaking the sealed engagement between the glass reservoir and the metallic support. It consists of a reservoir support having three openings therein, a removable check valve over one support opening and a removable bag reservoir exterior of the check valve and within the support, the sides of the bag practically abutting upon the sides of the support and having a slit valve in alignment with one support opening and having an integral plunger extending through the other support opening.

28. Kooperstein, 1,543,211, June 23, 1925. This invention relates to that type of valve operated by push-rod or plunger, to dispense small quantities of liquid soap. The object of the present invention is to provide a device of this type which is adapted to supply a measured quantity of the liquid, means also being provided for ejecting the liquid under air pressure. It consists of a casing formed with a chamber extending longitudinally therein and a second chamber closed at its upper end and extending transversely of the first chamber in communicating with the latter, and a valve device for controlling the admission to and the discharge of liquid from the casing, the liquid being permitted to flow to the second chamber via the first chamber whereby air is trapped in the second chamber above the liquid.

29. Burnett, 1,549,708, August 11, 1925. This invention relates to a hand brush for containing, dispensing, and applying liquid soap to the hands, for the purpose of enabling them to be more readily and thoroughly cleansed. The brush carries a hollow body having an opening for the discharge of liquid and an opposed opening for the inlet of air, a spring-actuated valve controlling each of the openings, a valve stem carried by each of the valves and each stem extended within the body in alignment with one another but normally separated at their inner ends, the valve stem of the valve controlling the said discharge opening extending outwardly of the body.

30. Rutt, 1.553,113, September 8, 1925. A bottle-shaped container has a dispensing device adapted to be frictionally held in the neck portion of the container, the device being provided with a vent tube adapted to extend into the top portion of the container when inverted, the device being provided with vent and discharge passages and a plunger valve normally closing the passages, and adapted to be manually operated to move it

into position to open both of the passages and to place the vent tube in communication with the vent passage.

31. KOPPELMAN, 1,556,149, October 6, 1925. The invention proposes to provide a system for supplying a considerable number of separate washrooms or lavatories

Oct. 27, 1925.

E. G. WATROUS
LIQUID SOAP FUNP
Filed April 25, 1918

situated on different floors of large buildings, such as office buildings and hotels, the entire system being fed from a single large supply reservoir located at the top of the building. In the use of apparatus for dispensing liquid soap difficulty has been experienced heretofore in avoiding leaking or clogging of the dispensing valves, it having been the experience that certain constructions which operate on sufficiently small clearances to afford leak-proof construction were subject to clogging from gummy deposits out of the soap, or from products of reactions occurring between the soap mixture and the metal or other material of which the dispensing devices were made. Because of the constant and rather violent usage to which the dispensing devices are subjected they are subject to wear which tends to make them leaky, and undesirable condition which is further augmented, in pipe line systems, by the hydrostatic pressure under which the material is fed to the dispensing devices from the supply tank on the wall. It will be obvious, therefore, that the tremendous increase in this hydrostatic pressure which will result from placing the supply reservoir near

the top of a tall building, and piping the material therefrom to lavatories on the different floors, would subject the dispensing valves to such pressures as will tend to increase by many fold the possibilities and probabilities of leakage through the dispensing valves. The general purpose of the present invention is the provision of a valve construction designed primarily to meet the requirements imposed by conditions such as those enumerated. The dispensing device which is adapted for connection to a supply line comprises a casing having an inlet port and an outlet port, a plunger operable in the casing to eject liquid through the outlet port, an inlet valve normally closing the inlet port to prevent passage of liquid therethrough from the supply line, a confining valve for closing the inlet port to prevent passage of liquid therethrough from the casing, an outlet valve controlling the outlet port, and means operable by the plunger to hold each of the valves in open position.

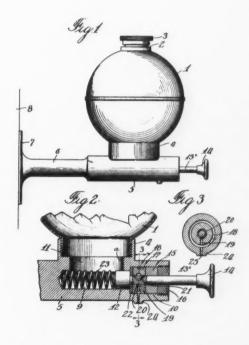
32. Watrous, 1,559,484, October 27, 1925. A soap dispenser having the combination of a chamber having

Feb. 23 , 1926.

L. KOOPERSTEIN

SOAP DISPENSING APPARATUS

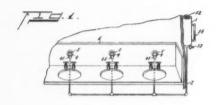
Filed April 3. 1925

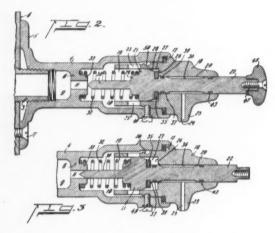


an inlet and an outlet, a packing washer co-acting with the outlet and having a hole therethrough of the same diameter as the outlet, a displacement plunger co-acting with said chamber and fitting in said outlet, said plunger embodying a cylindrical portion which fits the hole in the washer and a flange on the cylindrical portion adapted for engagement with the face of the washer, the plunger having a reduced portion to provide a discharge passage. 33. HARDY, 1,562,883, November 24, 1925. A liquid soap storage and dispensing apparatus comprises a plurality of outlets each draining from a depression at a lower level than adjacent reservoir or storage portions of the apparatus, said intermediate storage sections afford-

May 25, 1926. 1,586,397

G. A. BOBRICK
LIQUID SOAP DISPENSER
Filed August 18, 1919 2 Sheets-Sheet 1

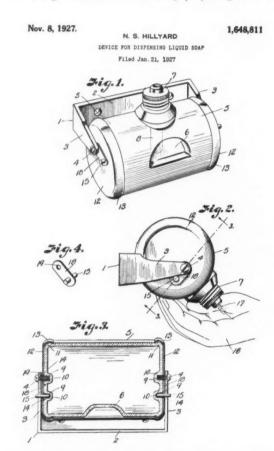




ing free flow to the adjacent outlets, means for supporting the entire apparatus as a unit on a horizontal axis in an operative dispensing position and permitting limited rotary displacement, and means for simultaneously rotating all of the outlets of the apparatus and for securing them in an inoperative position. Provision is made to meet the settling of sediment, any temporary pressure congealing or precipitation which may temporarily alter the homogeneous mixture of the soap. This is made possible by the support of the system in a manner permitting the sections to be rotated on their axis by means of the handle attached to one part of the system. With this arrangement, the settling of any heavier portions of the liquid soap or partial chemical segregation of the liquid can be shaken and the entire liquid content mixed to resume its desired homogeneous character by the oscillation of the storage system by turning it a few times by means of the handle, which brought back to the predetermined position again sets the system in position so that all of the outlets or dispensers are in a desired operative position. The handle may also be used to reverse the system so that the outlets are in an inoperative position, such as on the top of the reservoir, in which case the vent in the inlet cap is closed by suitable plug as shown, and

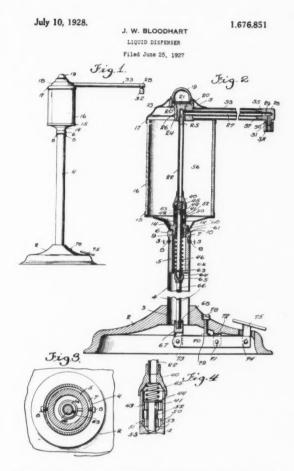
the handle may be locked in such position thereby preventing any chance of waste by leakage or preventing the use of the entire system at unauthorized times, or during periods when the chance of draining off the soap is to be prevented. In such locked position the entire system becomes hermetically sealed because the individual faucets are automatically closed, whereby the entire liquid soap content is preserved indefinitely. After such period of unuse, the reversal of the system automatically stirs up the content and any sediment that may have accumulated is carried to a position on the top of the reservoir where it cannot interfere with the out-flow at the faucets, nor interfere with the flow along the lower portion of the intermediate reservoir sections.

34. Aussenhofer, 1,565,888, December 15, 1925. A dispenser comprising a tank, a pocket formed therein with parallel vertical side walls, said pocket made with a discharge orifice, a hub bearing projecting from the



side of the pocket, a shaft journaled in the bearing and extending through the walls of the pocket, a plunger secured to the shaft in the pocket, a spring confined in the hub bearing and acting to hold the plunger in upstanding position above the pocket, an orifice cut-off means carried by the plunger and sealing off the orifice, and a manually operated means carried by the shaft for moving the plunger down into the pocket and opening the orifice.

35. Lesmann, 1,567,444, December 29, 1925. This invention provides a device which accurately and forcibly discharges a predetermined measured quantity of liquid soap and which is of such construction that the measured liquid is prevented from being forced back into the line or receptacle by the actuation thereof.



36. Kooperstein, 1,573,970, February 23, 1926. In soap dispensing apparatus, a valve casing provided with two longitudinal chambers, a piston normally disposed between the two chambers, a push-rod formed with a duct having an inlet and an outlet in the rod, the rod being connected in the piston, a valve sleeve surrounding the rod and the duct, a nozzle in the valve body, and a communication between the nozzle and the valve sleeve duct.

37. Kooperstein, 1,573,971, February 23, 1926. A soap dispenser having a valve body provided with an inlet and an outlet, a piston, a duct extending from opposite sides of the inlet, the outlet end of the duct being normally closed by the piston and means for imparting endwise movement to the piston whereby the inlet is closed and thereafter the outlet is opened, the continued movement of the piston forcing liquid through the duct and into the discharge outlet.

38. Вовяск, 1,586,397, May 25, 1926. In a liquid dispenser, a body provided with a chamber, an inlet

port opening into and an outlet port opening out of the chamber, the body comprising two separate cylindric members one extending into the other, the inner member having a large and a small bore, a plunger with a stem fitting the small bore and a head fitting the large bore, a valve actuated by the plunger to close the inlet on inward motion, and a valve actuated by the plunger is at the outer end of its stroke.

39. Bobrick, 1,586,398, May 25, 1926. In a liquid dispenser, a body having a rear end opening adapted to be connected to a feed pipe or the like, a large bore extending forwardly from the opening, a smaller bore extending to the forward end of the body from the large bore, a member fitting the large bore and insertible in it from its rear end and having an inlet port therethrough and forming at its forward side a displacement chamber extending rearwardly of the forward end of the large bore, a plunger having an enlargement on its rear end and fitting in and extending forwardly through the smaller bore with the enlargement in the displacement chamber, the enlarged end constituting valvular means adapted to close exit from the forward end of the chamber; and valvular means carried by the plunger to close the inlet port.

40. Heine, 1.587,830, June 8, 1926. In a liquid soap dispenser the combination of a case having a receiving chamber and an inlet passage opening into the chamber, a cap removably attached to the case and having a discharge chamber opening into the receiving chamber, a delivery spout connected with the discharge chamber, a plunger fitted in the receiving chamber and provided with a valve for closing the opening between the chambers, and operating stem attached to the plunger and extending through the discharge chamber, the plunger being provided with a passage connecting the parts of the receiving chamber on opposite sides of the plunger. a spring holding the valve normally against its seat, and an inwardly opening check valve in the inlet passage.

41. Kasper, 1,598,970, September 7, 1926. In a soap dispenser, a container, an externally threaded tube extending axially therethrough, a pressure plate having threaded engagement with the tube, the lower portion of the tube having an opening that constitutes a discharge aperture for the soap within the container, a tube arranged for sliding movement in the lower portion of the threaded tube, which sliding tube is provided with an aperture that is adapted to register with the discharge aperture in the threaded tube, a manually engageable disc carried by the lower end of the sliding tube and a spring bearing upon the upper end of the sliding tube.

42. Kooperstein, 1.599,240, September 7, 1926. The object of the present invention is to provide soap dispensing apparatus adapted for mounting upon a wash bowl frame or cover in such manner that the supply of soap is maintained in a container disposed under the surface of the wash bowl or the like, an ejection nozzle and an operating plunger being exposed above the bowl, the arrangement being such that upon detaching the

nozzle and removing a holding strap for the soap container, the entire device may be lowered and withdrawn from the wash bowl or the like device. The device comprises a receptacle, a nozzle head and nozzle, and means for connecting the nozzle head and the receptacle, the head being formed with a chamber, a plunger mounted in the chamber for endwise movement, a tube, a piston operated by the plunger and movable within the tube, a passageway leading through the plunger and communicating with the receptacle whereby soap fed into the plunger may pass into the receptacle, a soap inlet and a soap outlet in the tube, and means permitting the passage of soap from the outlet to the nozzle.

- 43. Newbold, 1,607,777, November 23, 1926. A soap dispensing apparatus comprising a soap container, connections for conducting water under pressure to the interior of the container to mix with and dissolve the soap therein and to force the soap solution out of the container, a dispensing valve, a discharge pipe for conducting soap solution from the container to the valve, and another valve controlling both the flow of water to the container and also the discharge of soap solution therefrom.
- 44. Goldrick, 1,624,231, April 12, 1927. A liquid dispenser having in combination a valve body provided with a displacement chamber having an inlet and an outlet and a valve seat surrounding the inlet and outlet, a valve stem having a valve head projecting into the chamber and means positioned within the chamber comprising a spring and valve closing member adapted to close the inlet, the valve closing member being carried solely by the spring whereby the inlet becomes closed consequent to a compression of the spring.
- 45. Kooperstein, 1,626,939, May 3, 1927. A soap valve comprising a casing provided with an inlet and an outlet passage, a valve disc normally shutting off the outlet from the inlet, a rod supported by the valve disc and provided with a duct normally closed by the disc, means carried by the rod for closing the inlet and means for successively actuating the rod and the valve disc to first close the inlet and open the duct for passage of soap to the discharge outlet and secondly permit the passage of soap around the valve disc to the outlet.
- 46. Lurcott, 1,633,448, June 21, 1927. A liquid dispensing device comprising a casing having an inlet and an outlet, a liquid receptacle in communication with the inlet, a plunger arranged for movement in the casing, the plunger having means for controlling the inlet and outlet to alternately open and close the inlet and outlet in the movement of said plunger, the plunger being bifurcated to provide a passageway between the furcations, the plunger being reduced in its length at two points so that the passageway will alternately communicate with the inlet and the outlet in the movement of the plunger in opposite directions, the furcations having a normal tendency to flex away from each other so as to impinge against the wall of the casing, and means extending between the furcations from the wall

of the casing to prevent the plunger from turning and for limiting the longitudinal movement of the plunger in one direction.

- 47. Crowell, 1,633,519, June 21, 1927. A liquid dispensing apparatus comprising a casing having inner and outer spaced valve chambers of equal bore and an intermediate chamber therebetween of greater cross-sectional area than either of the valve chambers, a valve normally closing the outer chamber and being movable through the intermediate chamber to close the inner chamber, the valve being so constructed that subsequent to entering the inner chamber it will permit the latter to remain in communication with the intermediate chamber for a predetermined period during inward movement of the valve, and means for returning the valve to normal position.
- 48. Morrill, 1,647,245, November 1, 1927. In a dispensing device, a supporting member provided with a flange, a container having an upper male threaded collar and a lower male threaded collar, the upper collar being screwed into the supporting member, and a valve fitting screwed on the lower collar, the valve fitting being in engagement with the flange of the supporting member.
- 49. HILLYARD, 1,648,811, November 8, 1927. A liquid dispenser comprising a U-shaped bracket, a cylindrical container having eccentric mounting sockets in its opposite ends, and having anchor sockets adjacent the mounting sockets, pins on the bracket projected into the mounting sockets to pivotally mount the container, plates pivotally mounted on the pins, and pins on the plates projected inwardly of the plates into the anchor sockets and outwardly of the plates for engagement with the bracket to limit pivotal movement of the container.
- 50. HILLYARD, 1,654,810, January 3, 1928. A container device for pivotal mounting on a frame having spaced supports provided with pivots, comprising a receptacle having opposite wall provided with recesses to receive the pivots, and caps on the opposite wall portions of the receptacle having pivot pin apertures aligned with the recesses through which the pivot pins project into the recesses.
- 51. Bloodhart, 1,676,851, July 10, 1928. The object of this invention is to provide a construction for liquid soap dispensers, in which the dispenser proper is swiveled on a floor stand to permit its nozzle to be moved for discharge at any point in a circular path and in which means is provided on the floor stand for operating the device by foot pressure, leaving the operator's hands free to receive the discharge of soap or other liquid. It comprises a standard, a liquid reservoir mounted upon the upper end of the standard, a pump arranged in the reservoir, connected rods having a part projecting through the bottom of the reservoir, a piston for the pump connected to the upwardly projecting part of the rods, a discharge means for the pump including a nozzle projecting from the reservoir, spring means for urging the rods in one direction, and a lever operatively connected

to the rods and adapted to cause the pump to feed liquid to the discharge means.

52. Dabrowski, 1,677,750, July 17, 1928. A liquid soap dispenser embodying therein a tank having an opening therein to the atmosphere, distributing piping including a plurality of branch pipes and a valve controlled delivery mechanism connected with each of the branch pipes consisting of a horizontal casing, a substantially vertical partition having an intake port therethrough, and forming a horizontally extending supply chamber, one end of said chamber having a recessed portion forming a sub-chamber communicating with the supply chamber, a nozzle leading from said sub-chamber, a valve movable in said sub-chamber and controlling the nozzle, an actuating stem therefor, a spring acting thereon, a second valve seated within the supply chamber and controlling said intake port, and operative connections between the valves, whereby with the opening of the first named valve, the other valve will be closed, and with the closing of the first named valve, the other valve will be opened.

53. Rose, 1,683,727, September 11, 1929. A resilient valve body the wall of which increases in thickness toward its base having a longitudinal recess therein and a resiliently normally closed aperture through the side of the valve wall into the recess so positioned that a transverse movement of the valve portion below the aperture will open the aperture.

54. Bobrick, 1,697,302, January 1, 1929. In a dispensing valve, a valve body provided with a discharge chamber having an inlet valve seat and a fixed outlet, a plunger slidably mounted in the valve body with the inner end thereof extending into the discharge chamber, a valve member slidably mounted in a bore formed in the inner end of the plunger, resilient means mounted on the valve member and acting against the said inner end of the plunger, whereby the valve member may be moved against said inlet valve seat in the discharge chamber and close the inlet to the discharge chamber after a predetermined inward movement of the valve plunger and thereafter remain seated during a further inward movement of the plunger.

55. Goldrick, 1,699,236, January 15, 1929. In a dispensing valve, a valve body having an inlet formed in an end wall of the valve body and an outlet port, a discharge piston slidably mounted in the valve body, a packing sleeve mounted on the piston and adapted to normally seal the discharge port, and resilient means normally maintaining the piston in an outward or non-discharging position and reacting on said packing sleeve and expanding it radially to maintain it in sealed relation with the discharge port.

56. GOLDRICK, 1,699,237, January 15, 1929. In a dispensing valve, a valve body with a discharge chamber having an inlet and an outlet, a valve stem having an annular shoulder formed thereon, a packing ring comprising an end wall of the discharge chamber, means for maintaining the packing ring in contact with the cylin-

drical portion of the piston during a predetermined movement thereof, a spring member normally maintaining the stem with the shoulder thereof in sealed contact with the packing ring, a plunger member carried by the stem and slidably movable relative thereto, a second spring member acting on the plunger and the stem to maintain the plunger in extended relation to the stem and with the end thereof spaced from the discharge chamber inlet, whereby the stem and plunger move as a unit upon a predetermined inward movement of the stem, the plunger member closing said inlet before the packing ring loses contact with the cylindrical portion of the piston.

57. KOOPERSTEIN, 1,699,364, January 15, 1929. A soap dispensing apparatus comprising a casing, a soap chamber in the casing, a discharge outlet and a valve shutting off the same from the soap chamber, an air chamber formed in the casing laterally of the soap chamber and having a passageway normally communicating with the latter, a valve for controlling the passage of soap into the soap chamber and means for normally holding the same in open position, and means for shutting off the soap chamber from the air chamber and establishing a communication between the air chamber and the discharge outlet comprising a plunger adapted to successively actuate the valves.

58. MORRILL, 1,715,774, June 4, 1929. A liquid dispensing device embodying a valve chamber the wall of which is provided with a channel constituting a liquid by-pass, a head at one end of the valve chamber and provided with an inlet, a piston valve slidable in the valve chamber and traversing the channel, the valve being operable in one direction for displacing through the channel liquid present between the valve and the head and the valve operating in its movement in the other direction for mechanically and forcibly ejecting liquid flowing in a determined quantity through the channel to the valve chamber below the piston valve, an outlet, a valve member for operating the piston valve and controlling the outlet, and a throttle valve movable with the piston valve and operable in the liquid inlet of the head for shutting off the flow of liquid to the valve chamber at the initial movement of the piston valve.

60. Albright, 1,719,865, July 9, 1929. A liquid dispensing apparatus, comprising a casing having a closed bottom and which casing is designed to receive therein an inverted liquid containing receptacle having an open bottom the receptacle being fixed on one side of the casing and projecting beyond the closed bottom of the casing and having its outer wall formed with a vertical passage communicating with its open bottom, and having an upper port establishing a communication between the passage and the receptacle, the receptacle having a lower port communicating with the bottom of the casing, a spring influenced plunger in the casing normally uncovering the lower port, stop means for limiting the outward movement of the plunger and a headed operating stem for the plunger.

(To be concluded)



Accent Castile Shampoo,—a new product which is being advertised in the middle west by its manufacturer, the Huntington Laboratories of Huntington, Ind. A castile shampoo in which the olive oil content,—80% edible olive oil,—is indicated exactly on the label.

Redesigned container is brought out for Gesco Liquid No-Rubbing Wax, manufactured by the G. E. Specialty Company of Brooklyn. Brilliant red and yellow lithographed can makes an attention-arresting package. Can by Continental.

New Products





G. H. Wood Company, Ltd. of Toronto, Canada, report considerable success with a new line of perfumed bath oils recently put on the market in Canada. Available in lilac, rose, lavender, and other odors. Packed in cellophane-front cartons. and

Packages



Clover Farm Scouring Pads in a cellophane-front carton,—a new item of the Clover Farm Stores, whose headquarters are in Cleveland. The package consists of five soap-impregnated mesh pads. The carton is in the Clover Farm red and blue color scheme.



Heetfield Photo

Simplification in the Palmolive Shampoo package design. This is the second redesigning of the Palmolive Shampoo label and carton during the past two years, each step toward greater simplification. The bottle is closed with a green and gold litho Phoenix Cap.



Herpicide Shampoo and Hair Tonic now offered in a new combination package with a massage applicator included. Made by the Herpicide Company, New York. Shaker top bottles by Owens-Illinois.

Caustic Potash

Turner Caustic Potash is especially adaptable for manufacturers of soaps, oil soaps, dry cleaning soaps and textile specialties. It is available in flake, solid or liquid form in containers of all sizes to meet your requirements. Try it on your next order.

INDUSTRIAL CHEMICALS

Tri-Sodium Phosphate

Turner T.S.P. is a brilliant white product. It is free flowing, quickly soluble, and will meet every cleanser requirement. For a superior product, Turner T.S.P. is an obvious first choice.



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Local delivery tank truck service throughout the Metropolitan New York area.

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NEWS . .

Bialecke to Europe

Adam A. Bialecke, perfumer for Armour Soap Works, Chicago, sailed recently for Europe. Mr. Bialecke intends to visit relatives and will also spend some time in the important essential oil producing areas on the Continent.

Wrisley Enlarges Showrooms

Allen B. Wrisley Co., Chicago, has recently enlarged and redecorated the New York showrooms of the company at 347 Fifth Avenue.

- 4 -

Permit "Shav-ami" Mark

McKesson & Robbins, Bridgeport, Conn., have been permitted by the U. S. Patent Office to register "Shav-ami" as a trademark for a brushless shave over the protest of Bon Ami Co., owners of the mark "Bon Ami". Assistant Commissioner of Patents Leslie Frazer ruled that there is no reasonable likelihood of confusion resulting from concurrent use of the two marks.

Battle Creek Soap Co. Moves

Ewing Kutzit Soap Co., formerly located at 54 Prospect St., Battle Creek, Mich., has just moved its headquarters to 1645 H Street, Lincoln, Nebraska.

To Make Washing Powder

Excelso Products Co. has started operating recently at 734 Riopelle St., Detroit, manufacturing "Excelso" washing powder. Henry Harden and W. L. Riley are the principals.

New "Palmolive" Ad Campaign

A new and extensive campaign in magazines and newspapers is planned for "Palmolive" soap, based on the use of the product by the Dionne quintuplets. The new campaign has already been launched on the Palmolive Community Sing radio series and in newspapers and magazines.

Peet C-P-P Ad Manager

Roy W. Peet has been appointed advertising manager of the Colgate-Palmolive-Peet Co., succeed-



ing Ken R. Dyke who just resigned. Mr. Peet started his business career seventeen years ago as an employee of the old Peet Company in Kansas City. He sold the retail trade for five years and in 1927 joined the Palmolive - Peet advertising department. For the past three years he has served as assistant advertising manager under Ken R. Dyke.

Form Hydrol Soap Co.

Hydrol Soap Products Co. has just started operations at 921 Winder St., Detroit, manufacturing laundry soap, soap powder, liquid cleanser and bluing. All are new products except the soap powder which was formerly made by La Salle Soap Products Co.

Offers New Cleaning Fluid

Wyo Products Co., 407 East Fort St., Detroit, is now offering "Glasglo" cleansing fluid for cleaning glasses, mirrors, dishes and fabrics.

General Soap Co. Moves

General Soap Co., formerly located at 529 Root St., Chicago, has just moved its factory and offices to new and larger quarters at 2215 Ford Ave. The new building includes 22,000 square feet of floor space, and is well fitted for soap manufacturing purposes.

Makes "Septo" Cleaner

Septo Laboratories, 3401 Mc-Clellan Avenue, Detroit, has recently started operations, manufacturing "Septo," a cleaning compound.

Mennen Names Ritchie Agent

Mennen Co., Newark, N. J., has appointed Harold F. Ritchie & Company, Ltd., Toronto, as its Canadian distributor. Arrangements have been completed to have the Mennen line manufactured by J. C. Eno, Ltd., Toronto.

New Huntington Shampoo

Huntington Laboratories, Inc., Huntington, Ind., has appointed Merrill Advertising Co., Cincinnati, to handle the advertising campaign on "Accent," a new shampoo. A series of test campaigns in selected markets will be the first step.

Solarine Accepts FTC Order

Solarine Co., Baltimore, selling "Jumbo" cleaning solution, has agreed to discontinue advertising that the product removes all odors, kills germs and bacteria, and disinfects burns, cuts, scratches and insect bites. A stipulation to this effect has been signed with the U. S. Federal Trade Commission.

C-P-P Advances Reilly

J. A. Reilly, formerly Eastern sales manager in charge of "Octagon" territories, has been appointed assist-



The Old Car seems to do very well...

until you ride in a new one!

(Which fact may point the way to important improvements in your wrapping department)

You only realize what an improvement has been made in cars, when you ride in one of the recent models . . . And you will probably also find it far less costly to run!

Your soap wrapping machines should likewise be compared with modern models, if you want to be sure that your wrapping department measures up to present-day efficiency.

Wrapping machine design and construction has advanced considerably in the past few years, and this reflects itself not only in greater plant efficiency (lower costs) but also in the package itself—an important sales advantage.

Why not check up on your wrapping equipment now by making a definite comparison of your present machines with our new models?

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PACKAGE MACHINERY COMPANY, SPRINGFIELD, MASSACHUSETTS

NEW YORK, CHICAGO, CLEVELAND, LOS ANGELES, MEXICO, D. F. Apartado 2303 Peterborough, England: Baker Perkins, Ltd., Melbourne, Australia: Baker Perkins, Pty., Ltd.



ant manager of the soap department of Colgate-Palmolive-Peet Co. He has been connected with the company for twelve years, during which time he has held several executive positions.

White King Fashion Offer

White King Soap Co., Los Angeles, is planning to offer a new premium in the form of a fashion forecast service. The new fashion folders, printed in color, will be issued monthly. Tops from two packages of "White King" granulated soap will bring the "Studio Styles Fashion Forecast" to any housewife, the company is announcing in newspaper advertising throughout its territory.

Cleaner Mfrs. Join AGMA

Climax Cleaner Manufacturing Co., Cleveland, and Clorox Co., Oakland, Calif., have recently become members of the Associated Grocery Manufacturers of America, New York.

Kansas City Firms Move

Commercial Laboratories, Inc., formerly located at 1301 West 8th St., Kansas City, and Research Products, Inc., 3017 West Pennway, moved August 15 into new quarters at 1522 Holmes St. In the new location the firms occupy a two-story building with 18,000 sq. ft. of floor space. Harry Portman is president of Commercial Laboratories, Inc., which manufactures soaps, disinfectants, insecticides and cleaning supplies. Dr. J. H. Weiner is president of Research Products, Inc., manufacturing chemists in the live stock remedy field.

Colombia Restricts Soap

Imports of soap have recent'y been subjected to restrictions by Colombia. Common soap which may be made domestically of native materials can no longer be imported.

Nygren Oil Moves

Nygren Oil & Supply Co., formerly located at 1418 Hayes Ave., Racine, Wis., has recently taken new quarters at 2405 Washington Ave.

J. L. Oestmann Dies

Jacob L. Oestmann, an official of James S. Kirk & Co., Chicago, for many years, died last month at his summer home in Burlington, Wis., at the age of seventy-four. Mr. Oestmann was born in Chicago and entered the Kirk organization at the age of twenty-one. He rose to the position of treasurer of the company prior to his retirement in 1925 when the Kirk firm was consolidated with Procter & Gamble Co. Surviving are his widow, Gertrude Oestmann, a daughter, Mrs. Ethel Pulver, and two sons, Charles and Albert.

Shaving Soap in Maine

Reports indicate that manufacturers of shaving soaps and shaving creams are registering their products under the Maine Cosmetic Law, although the law exempts these products a'ong with toilet and laundry soaps. Some manufacturers are registering under protest, but nevertheless registering. It is understood that one of the leading shaving soap manufacturers, located in New England, whose business in Maine is large, registered his products. Other manufacturers, in order to avoid trouble for dealers handling their products should the authorities become active in the direction of shave products, are following suit as a precautionary measure. By contrast, under the new Louis'ana Cosmetic Law, shaving soaps, shaving soap creams, and brushless creams are all classified as soaps and specifically exempt from registration and the frees in connection therewith.

Protest Babassu Imports

A protest against duty-free imports of babassu nuts and oil into United States has been filed with the U. S. Dept. of State by the National Dairy Union and the National Co-operative Milk Producers Federation. One of their purposes is to prevent the inclusion in future reciprocal trade agreements with Latin-American nations provisions such as the one contained in the present Brazilian agreement under which the United States promises

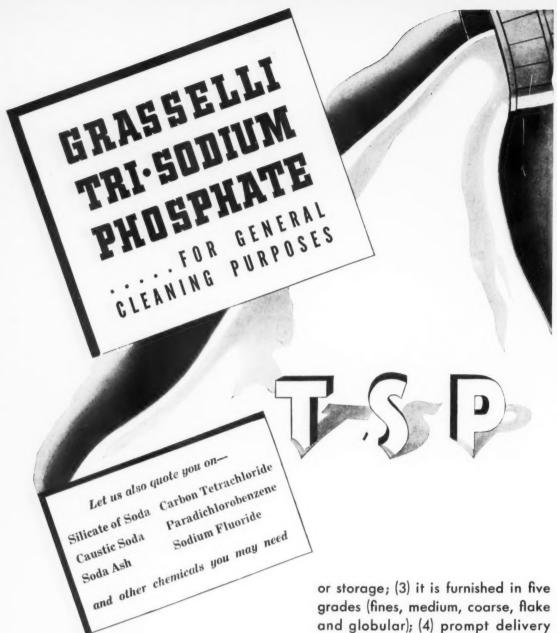
that no internal taxes will be levied on babassu nuts. The validity of the Brazilian agreement is also challenged. Although babassu nuts have been coming into the United States in small quantities for a number of years it was not until recently that the trade in the oil assumed importance. Imports totaled slightly more than 40,000,000 pounds during the first six months of 1936, compared with only 15,000,000 pounds for the entire period of 1935. There were also imported 329,226 pounds of babassu oil this year.

Laboratory Products Moves

Laboratory Products Co., Chicago soap and cleanser manufacturer. announces that production will begin in the new plant at 3600 S. Morgan Street on September 1st. The threestory building has been remodeled and this together with the new equipment being installed will give the company one of the most modern medium-sized plants in the country. New units which will double the company's production on cleanser and soap powder are being installed. An additional new soap roller has been purchased and all obsolete equipment is being replaced so that production costs on all the company's items will be considerably reduced. The company, which is a comparative newcomer in the soap industry, has experienced a steadily increasing volume of business.

Issue Oil Import Tax Rules

Regulations for the administrative application of sections 701, 703, and 704 of the U.S. revenue act of 1936 have been issued by the Bureau of Customs as T.D. 48469. These sections of the revenue act went into effect August 21. The regulations are informative for Collectors of Customs and others concerned in respect of the procedure in levving, assisting, and collecting of the new taxes. They also explain how these taxes are to be paid and are generally informative in respect of the application of the levies to import entries and withdrawals from warehouse.



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Application of The Robinson-Patman Act

S business men have found time to inquire more closely into the many provisions and ramifications of the recently adopted Robinson - Patman Anti-Price Discrimination Act, they begin to appreciate that, if sustained by the higher courts, it will mean a tremendous upheaval in many longestablished selling practices. The new act, which started out as a move to curtail the chain store systems, and restore the independent retail operators to some sort of a comparable competitive basis with them, was expanded in the "borning" into a measure which its original framers had difficulty in recognizing.

In its final form the act has all the magnitude of the NRA scheme at its peak, with not a manufacturer or a retailer doing an interstate business being unaffected by its provisions. Its principal purpose, of course, is to prohibit discrimination in price, or in terms of sale between purchasers of commodities. In general, every buyer is to be given the same price treatment on like quantities of materials purchased. To quote from the report of the House Committee on Judiciary, "It is the design and intent of this bill to strengthen existing anti-trust laws, prevent unfair price discrimination, and preserve competition in interstate commerce."

So much for the purpose of the act. Now as to machinery for carrying out this legislative intent—the Robinson-Patman Act seems to have what the NRA lacked—teeth. Any person who feels that he has been subject to price discrimination which imposes on him unfair competitive conditions may sue for three-fold damages, including his attorney's fees, under the Clayton Act, which the Robinson-Patman Act amends.

It is important to note here that to justify a suit under the act competition must be affected. Where competition is not affected. differences in selling terms are not forbidden. Even with this restriction it is obvious that under the act myriad violations are being committed every day and will continue until the act is tested in the highest courts. One prominent attorney has stated: "It has been said of other laws that they contain a lawsuit in every line—but this (Robinson-Patman Act) contains a lawsuit in literally every word."

On the subject of lawsuits, it is interesting to note that the burden of proof is placed expressly upon the respondent in any case arising under the act. The seller accused of price discrimination is, by a unique new principle of law, considered guilty until he proves himself innocent. Offenders are not only liable for civil penalties, it should be noted, but for criminal penalties as well. Section three provides for a penalty of not more than \$5,000 or imprisonment for not more than one year, or both, for violations in addition to the civil penalties. Another point to note while on the subject of penalties is that seller and buyer alike are equally guilty, it being unlawful "knowingly to induce or receive a discrimination in price prohibited by the act."

Returning from the penalties to the provisions of the act itself. we find that besides outlawing discrimination in price, it seeks to make every other selling factor equal as among buyers of like amounts. The payment of brokerage, commission, or other compensation is forbidden, except for services actually rendered. Allowances for advertising or sales promotion work are declared unlawful unless they are made available on proportionately equal terms to all customers who compete with one another. Special services in the processing, handling or selling of articles offered are also prohibited. In other words, the act not only attempts to prevent actual discrimination in price between different buyers, but also seeks to anticipate and eliminate in

advance all the subterfuges which it is considered that sellers might resort to in order to achieve price discrimination by another method.

Selling goods in one part of the country at prices lower than elsewhere "for the purpose of destroying competition or eliminating a competitor" is made a criminal offense. It is also a criminal offense to sell goods "at unreasonably low prices for the purpose of destroying competition or eliminating a competitor."

Turning from what one cannot do under the act to practices which are apparently permitted, we find that differentials can be made on commodities of like grade and quality provided such differentials are based on relative cost of production and distribution. Functional differentials such as would apply to jobbers, dealers or consumers are allowable, but must be based on the relative costs of production and distribution involved. Different price scales will apply in different geographical districts, apparently, but must be geared closely to the actual differences in cost of distribution, and not be made on a purely arbitrary basis.

Where non-competing classes of consumers are involved, it seems that differentials in price or conditions of sale can be justified. Thus a manufacturer might sell a certain product to one class of buyers at one price level, and might safely sell the same product to another non-competitive class of buyers, to be used perhaps for a different purpose, on a different price scale.

An interesting point is raised when a seller lowers a price to meet lower prices quoted by his competitors. First, he must be able to prove the low price which he meets. Second, in lowering his price to meet competition he must go no further than to meet these prices. If he goes further he must do likewise with all his other customers on the same quantity.

The safe course under the new act, assuming that its validity wil! be upheld, seems to be the adoption of an open price policy with ade-

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quate publicity. Strict adherence to such a policy should protect the seller against charges of unfair competitive practices, pending final determination of the constitutionality of the new measure.

Buys Holbrook Mfg.

James S. MacIntosh purchased the assets of the Holbrook Manufacturing Co., Jersey City, N. J., wellknown manufacturers of industrial soaps and specialties, which has been operating under a receivership for the past six months. The sale was made by Edward C. Schultz, trustee in bankruptcy. A new corporation of the same name has been formed with Mr. MacIntosh as president and treasurer. He has been associated with the concern for the past 32 years and was formerly manager of the company. The firm will continue to manufacture a full line of industrial soaps and will add certain specialties to its line.

Laco Succeeds Lockwood

Laco Products, Inc., has been formed to succeed to the business and organization of Lockwood Brackett Co., Boston. The firm's line of "Laco" products have been marketed over a 51 year period. They include "Laco" castile soap, "Laco" olive oil, "Laco" castile shampoo and "Laco" baby powder. T. R. Lockwood, one of the founders of the business, will continue active in Laco Products, Inc., in the capacity of vice-president. The company also plans to extend its program of national advertising. Joseph Katz Co., Baltimore and New York, has been appointed to handle the advertising account. Control of Laco Products. Inc., has been acquired by Pompeian Olive Oil Corp., Baltimore, as reported in the August issue of SOAP.

Restrict Soap Imports

Netherlands has restricted imports of toilet soap during the third quarter of 1936. A royal decree provided that imports from each country were not to exceed 60 per cent of the average quarterly imports therefrom in 1935.

Face Acute Shortage of Spanish Oils

Coming at this time of year. when spot stocks of all Spanish essential oils are allowed to run low in anticipation of the supply from new harvestings, the civil war in Spain is beginning to work havoc in essential oil circles. There is no telling what may be happening in the producing regions in Spain, inasmuch as no reports are being received. Whether the natives of the interior of Spain who distill the oils are going right ahead with their customary routine trusting that everything will be settled shortly and things will go on as usual, or whether the existing uncertainty has so gripped them that they are taking no chances on receiving payment for their work, is not known. The oils, such as spike lavender, thyme, rosemary, and origanum are generally produced by small farmers who take advantage of the opportunity which presents itself in the spring and summer to supplement the poor income which they receive from their other crops with the production of these oils. They cut the herbs which grow wild in many parts of Spain and distill them in portable or makeshift stills which they set up to suit their convenience. Distillation is often carried on day and night by small groups who work in shifts.

What is known about the situation, however, is that no new supplies of oils are being exported from Spain and that, with demand increasing, prices are advancing. What makes the situation so uncertain for the American consumer is the utter absence of any definite knowledge of just what is to be expected. The way things look now. however, indicates that there is not likely to be much let-up in the high price situation because, even if a settlement should be reached soon in Spain, it seems probable that the damage will already have been done and shortages will be inevitable.

Recent advances in prices of

the most important Spanish oils are shown by the following figures:

	Pre en: Price	June 1st Prices
Spike Lavender	\$1.25-\$1.50	\$1.00-\$1.25
Pennroyal	1.60- 1.70	1.35- 1.40
Rosemary	.3850	.3040
Thyme Oil, Red	.95- 1.35	.58- 1.02
Thyme Oil, White	.90- 1.45	.65- 1.10
Origanum	.80- 1.00	.7075

Olive Oil Situation

Aside from the essential oil situation, the Spanish revolution warrants the concern of the soap maker from the standpoint of olive oil supplies. Most of the commercial grades of olive oil for soapmaking come from Spain. On account of the war, all shipments have ceased. The shortage of Spanish olive oil puts an excessive demand on supplies of the oil from other sources, and consequently has led to substantial increases in price. The general state of affairs has also led to rises in the olive oil foots market. as an increase in demand has taken place.

A comparison of present prices with those before the trouble in Spain began is shown by the following figures:

	Present	June 1st
	Prices	Prices
Commercial Olive	Oil \$1.40	\$.74
Olive Oil Foots.		.08

Oil and Fat Price Index

The oils and fats price index, as compiled by the Bureau of Raw Materials for American Vegetable Oils and Fats Industries, increased from 97.8 in June to 101.0 in July. This index was 100.1 in July of 1935. The index numbers of various oils and fats for the months of June and July. 1936 are as follows:

	July	June
	1936	1936
Corn oil	143.1	128.9
Cottonseed oil	150.6	140.1
Stearin, oleo		
Coconut oil*	47.9	42.9
Grease	87.2	70.6
Olive oil	94.3	89.9
Olive oil foots		115.4
Palm oil*	51.9	48.9
Palm kernel oil*	47.7	54.6
Tallow	82.3	71.0
Whale oil		107.9

^{*} Tax not included.

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Kirk Descendants Die

Mrs. Emma Kirk McEwen, daughter of Martin Kirk and a grand-daughter of the founder of James S. Kirk & Co., died at her home in Winnetka, Ill., last month at the age of fifty-nine. She was the widow of John McEwen, retired director of the company, who died in 1933. Another member of the old James S. Kirk family to die recently was Radcliffe W. Kirk, twenty-five year old son of Walter R. Kirk. He was killed in an automobile accident near Highland Park, Ill., last month.

F.T.C. Cites Hewitt Soap

Charges of unfair competitive methods in the sale of soaps have just been filed by the U.S. Federal Trade Commission against Hewitt Soap Co., Dayton, and its subsidiary, Crown Soap Co., also trading as Dayton Soap Co. According to the complaint, the respondents' soaps are of cheap grade, and although labeled at prices ranging from 2 cakes for 25 cents to 25 cents a cake, are sold to canvassers at from 2 cents to 41/2 cents a cake. The prices marked on the soap products, the complaint alleges, are fictitious and exaggerated. are intended to be far in excess of the prices actually charged consumers, and such soaps are never sold at the labeled prices. Objection is also taken to use of the terms "antiseptic", "medicated" and "medicinal" to describe certain soap. These products, the complaint states, do not contain proper ingredients in sufficient quantities to make them antiseptic, medicated or medicinal. Hewitt has been allowed until September 18, to show cause why an order to cease and desist from the practices complained of should not be issued.

Soft Soap Hard Eating

The latest issue of Senco News, house organ of Sennewald Drug Co., St. Louis, tells the story of three rats which left their nests beneath the court house to garner a bit of lunch from a barrel of soft soap in a storeroom and fell into the barrel. William E. Pfeiffer, court house janitor, found them struggling to climb the soapy sides of the barrel. With each attempt, the rats would slide back into the soft soap and become more thoroughly coated. It was their last meal.

Turner Moving Offices

A new building is now under construction for Joseph Turner & Co. at Pleasant View Terrace, Ridgefield. N. J., which will house the



Walter Merrill

main office of the company after October 1. Present offices at 500 Fifth Ave., New York, will be maintained as a New York branch, according to Walter Merrill, general manager of the firm. Bonanno Bros. Construction Co. of North Bergen, N. J., are building the new two-story plant which will be of steel and brick. It will have warehousing, distributing and manufacturing facilities with a ten-car railroad siding on the premises. Among the manufacturers represented by the Turner organization are Buffalo Electro Chemical Co., Niagara Alkali Co., Colonial Salt Co., Oldbury Electro Chemical Co. and Oldbright & Wilson, Ltd. A branch office is maintained at 36 Exchange Place, Providence, R. I., under the direction of Parke H. Masters.

Clarify Louisiana Act

Latest reports from Louisiana indicate that shaving soaps and creams—including stick, cake, powder, brushing creams and brushless creams—will be exempt from application of the Louisiana cosmetic

act as well as soaps, whose exemption from the act was reported in these columns a month ago. The only soaps to which the act will apply will be those for which medicinal or curative qualities are claimed. This information comes direct to Roscoe Edlund of the Association of American Soap & Glycerine Producers from Mr. Christenberry, association counsel in Louisiana. Soaps and shaving creams will also be exempt from the state 2 per cent sales tax when they retail for less than 10c, we are advised. New Orleans has recently added a local 2 per cent sales tax in addition to the state tax, and doubtless soaps and shaving creams will be similarly exempted from this municipal tax, although official regulations have not yet been issued.

Kentucky Tax Held Void

The section of the Kentucky omnibus tax bill imposing a tax on cosmetics has just been held unconstitutional by the Judge of the Franklin Circuit Court on the ground that it undertakes to tax receipts rather than on the basis of sales made at retail. This decision will be appealed to the Court of Appeals but it is not likely that the Court of Appeals will pass upon the appeal before some time in October.

C-P-P Toiletries Week

Colgate-Palmolive-Peet Co. is sponsoring a "Toilet Goods Week" sales plan in retail stores throughout the country in an effort to increase toilet goods sales. Suggested displays and equipment are offered as a part of the plan, this sales equipment to be given with each order for an assortment of Colgate products. It is suggested that each dealer hold a special "Toilet Goods Week" at least four times a year.

Tallow Imports Off

Argentine tallow shipments have declined, according to American Trade Commissioner at Buenos Aires. Exports of unrefined tallow during May last year totaled 5,521 metric tons, but fell to 2,755 tons in May, 1936.



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Effect of Oil Taxes

A folder prepared by the Bureau of Agricultural Economics, U. S. Dept. of Agriculture, entitled "Fats and Oils, and the Excise Taxes of 1936", has just been issued. After reviewing changes in the oil and fat tax structure, some probable effects of the changes in taxes are considered. Speaking of the soap industry it is stated:

"The tax of 3 cents per pound on tallow (and on all inedible animal fats and greases n.s.p.f.) will probably have a significant effect. During the past 2 years, with a 3-cent-perpound tax on coconut oil, palm and palm-kernel oils, and only ½ cent duty on tallow, it has been imported for soap, displacing coconut and palm oils to some extent. Tallow imports increased from 200,000 pounds in 1933 to 246,000,000 pounds in 1935, but dropped to 30,000,000 pounds the first five months of 1936.

"The imports of palm oil in 1935 went largely into vegetable shortenings. In 1934, 156,000,000 pounds of palm oil were imported and over 80 per cent of the consumption was by the soap industry and less than 10 per cent in food products; whereas in 1935, the soap industry absorbed only 35 per cent of the 297,000,000 pounds imported, and vegetable shortening utilized over 45 per cent.

"At current prices, 4.7 cents per pound for inedible tallow in Chicago, and 3½ to 4 cents per pound for palm and coconut oils, a 3-cent excise tax on imports plus ½ cent duty on tallow, compared with a 3-cent tax on palm and coconut oil, is likely to discourage the use of imported tallow in soaps. Throwing the Argentine tallow back onto foreign markets, together with apparently increasing world supplies of fats, may tend to reduce prices of other foreign soap materials coming into the United States."

Cotton Oil Stocks

Stocks of refined cottonseed oil on hand in United States as of July 31, 1936, totaled 319,014.573 lbs., as compared with 444,833,215 lbs. on the same date last year. Stocks of crude oil were 18,707,199 lbs., July 31, 1936, as compared with 28,262,543 lbs., July 31, 1935.

Firmenichs Represent Swiss

Fred and Andre Firmenich of Chuit Naef & Cie, Geneva, represented Switzerland in the 6-meter yacht race of the Olympic Regatta at Kiel, Germany. They sailed the "Ylliam III" built in Stockholm specially for the Olympic races. The house of Chuit Naef is represented in United States by Firmenich & Co., New York.

Columbia Offers Chlorine

Columbia Alkali Corp. has just announced the addition to its line of liquid chlorine and electrolytic caustic soda. A complete new modern plant has been finished and shipments are now being made in tank cars and in 100 and 150 lb. cylinders. The new unit is located on the company's extensive property holdings at Barberton, Ohio, and is well removed from other plant operations. A standard type electrolytic cell is used in the new plant. Raw materials in abundance, together with favorable power situation, and efficient plant operation, coupled with excellent transportation facilities, insure users of Columbia chlorine an economical and dependable source of supply. For nearly half a century Columbia Alkali Corporation has been a leading factor in the production of soda ash, caustic soda. and by-products. It seems to be a logical development that chlorine should be added to the line. The executive offices of the company are located on the 43rd floor of 30 Rockefeller Plaza, New York.

C-P-P To Build in Indiana

Colgate-Palmolive-Peet Co. is reported to be planning expenditure of about \$200,000 to expand operations at its plant at Jeffersonville, Ind. It is planned to erect a five-story brick building for manufacturing and warehouse purposes. Construction is to start early in September.

Kay Tee Prods. Moves

Kay Tee Products Co., powdered soaps and household cleansers, formerly located at 814 Bergen St., Brooklyn, has moved recently to 555 Park Ave.

Bourjois to Appeal

The recent adverse decision handed down against Bourjois, Inc., in the Maine courts in its test of the validity of the Maine Cosmetic Law will be appealed to the U. S. Supreme Court, according to the latest reports. Bourjois had at one time decided to give up further appeal plans, but reversed this decision in view of a feeling that a matter of important principle is involved in the Maine act which seeks to tax out-of-state manufacturers by compelling extensive registration fees.

To Advertise "Ryko" Shampoo

Ryko Products, Inc., Atlanta, maker of "Ryko" shampoo as well as scalp and skin preparations, has appointed Atherton & Currier, New York, as its advertising agents to conduct a newspaper advertising campaign on these products.

Soap for N. Y. Schools

Free soap and towels for the children of the public schools of New York City may be available for the first time in years during 1937, as the result of inclusion of an appropriation of \$50,000 for this purpose in the tentative budget submitted by the New York City Board of Education. Heretofore pupils have been required to bring their own soap. The suggested change to supply by the Board of Education is described as an experimental measure in the new budget.

Protest Tax on Soap

Purchasers of soap in Alberta, Canada, are reported to be protesting vigorously against imposition of the 2 per cent provincial sales tax on purchases of soap in quantities over a value of 15c. The only present solution in order to avoid the tax, they are being advised, is to buy in quantities or qualities under 15c.



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Van Makes Hole-in-one

A. L. Van Ameringen, head of Van Ameringen-Haebler, Inc., New York, essential oils and perfuming materials, scored his first hole-in-one on the 175 yard third hole at the Baltusrol Golf Club. Short Hills. N. J., late last month. When asked for the formula for this accurate drive. Van replied, "That's the way I played the shot". Elaborating a little further he advised, "Pick a hole with lots of wood and rock, hit two trees and rock and allow just enough back spin to guard against putting the ball through the window of a nearby house in case you miss the hole".

J. E. Wolfe Dies

Jesse Emmett Wolfe of Neumann-Buslee and Wolfe, Chicago, died August 8th in Los Angeles at the age of sixty. Funeral services were held at Arkansas City, Kansas. Mr. Wolfe has for many years been a well known figure in Chicago's essential oil trade. He was with the National Aniline and Chemical Co. until 1920 when the essential oil department of the company was discontinued. He then formed a partnership with Messrs. Buslee and Neumann, both of whom had also been with National Aniline.

Parento Sales Mgr. Returns

Irving Bennett, sales manager of Compagnie Parento, Inc., New York, essential oils, has recently returned from an extended midwestern trip. He made his headquarters at the Chicago office of the company which is under the direction of E. J. McBrady.

On Pfaltz & Bauer Staff

J. H. W. Kerston has been appointed sales promotion manager of Pfaltz & Bauer, Inc., New York, importers of chemicals and chemical laboratory apparatus. Mr. Kerston was for many years advertising and sales promotion manager for Carl Zeiss, Inc., and more recently European representative of McGraw-Hill Publishing Co.

Contracts Awarded

Brooklyn Soap Award

John T. Stanley Co., New York, has just been awarded a contract covering 350,000 lbs. laundry soap for the Brooklyn U. S. Army Quartermaster at a price of 5.98c. B. P. Ducas Co. awarded 310,000 lbs. laundry soda at a price of 1.297c.

Phila. Soap Award

Armour & Co., Philadelphia office, have just been awarded a contract covering 10,000 cakes toilet soap and 10,000 cakes laundry soap for the Philadelphia engineer, prices quoted being \$6.40 and \$3.28 per 100 lbs. respectively.

G. E. Specialty Co., Brooklyn, N. Y., has been awarded a contract for 400 gals. of liquid insecticide at 65c per gallon by the Purchasing Division of the City of New York.

Laundry Supply Awards

Colgate - Palmolive - Peet Co., Jersey City, has just been awarded a contract covering 81,360 lbs. soap chips for Fort Sam Houston at a price of 5.88c. Dixie Supply Co., San Antonio, awarded 99,400 lbs. soda at 1.53c.

Chicago Soap Award

Samuel M. Sher Co., Chicago Heights, Ill., has just been awarded a contract covering 15,000 lbs. laundry soap for the U. S. Army Quartermaster at Chicago at a price of 2.85c.

Laundry Soap Award

Colgate - Palmolive - Peet Co.. Jersey City, has just been awarded a contract covering 5,000 lbs. powdered laundry soap for Jeffersonville, Ind., laundry supplies at a price of 7.31c. Louisville Chemical Co., Louisville, Ky., awarded 7,000 lbs. laundry soda at 1.59c.

Brush Award

National Brush Co., Aurora, Ill., has been awarded a contract by

the Jeffersonville, Ind., U. S. Army Quartermaster, covering 7,200 hand scrubbing brushes at a price of 18c. Leonard Brush & Woodenware Co., Louisville, Ky., awarded 864 cotton mops without handles at 22½c.

Jeffersonville Soap Awards

The following awards on various soap items have been made recently by the Jeffersonville, Ind., U. S. Army Quartermaster: Procter & Gamble Distributing Co., Cincinnati, 150,000 lbs. laundry soap, 3.19c per lb.; Hunnewell Soap Co., Cincinnati, 10,000 cakes grit soap, 1.9c cake; Armour & Co., Chicago, 5,000 cakes toilet soap, .0096 per cake.

Jeffersonville Soap Awards

Procter & Gamble Distributing Co., Cincinnati, has been awarded a contract to supply the Jeffersonville, Ind., U. S. Army Quartermaster with 235,860 lbs. laundry soap at a price of 3.19c. Hunnewell Soap Co., Cincinnati, awarded 19,374 cakes of grit soap, 10 · 12 ozs., at 1.9c.

Naphthalene Award

Globe Chemical Co., St. Bernard, Ohio, has just been awarded a contract covering 2,000 lbs. flake naphthalene for Jeffersonville, Ind., U. S. Army Quartermaster at a price of \$7.40 cwt. Joseph Dixon Crucible Co., Jersey City, awarded 20,000 6-oz. cakes of stove polish at 3.8c cake.

Fort Mason Soap

The Berkeley office of Colgate-Palmolive-Peet Co. has just been awarded contracts covering the following items for the Fort Mason U. S. Army Quartermaster: 180 lbs. chip soap at 6.43c; quantity powdered laundry soap at 6.68c; chip soap in 5 lb. cartons at 7.375c. B. P. Ducas Co., New York, awarded quantity of laundry starch at 6.18c. Pacific Alkali Co., Los Angeles, awarded quantity of laundry soda at 1.58c.



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New Trade Marks

The following trade-marks were published in the August issues of the Official Gazette of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

Cuco B—This in solid letters describing paste soap, scouring powder and detergents. Filed by Cunningham Cleanser Corp., New York, Jan. 2, 1936. Claims use since Apr. 1, 1929.

Mesco Surgueul — This in solid letters describing germicidal soap. Filed by Medical Soap Co., New Orleans, Apr. 13, 1936. Claims use since Nov. 26, 1928.

GARGOYLE—This in solid letters with sketch of gargoyle, describing cleaning composition. Filed by Socony-Vacuum Oil Co., New York, May 7, 1936. Claims use since Apr. 17, 1936.

HALCO—This in reverse on carton describing soap chips. Filed by Halle Bros. Co., Cleveland, May 8, 1936. Claims use since May, 1933.

RASOLINE MOLINARD—This in solid letters describing shaving cream. Filed by Pierre Amouroux, Inc., New York, May 12, 1936. Claims use since June 26, 1934.

MILKY WAY—This in outline letters describing shoe polish. Filed by Gable Laboratories, Jacksonville, Fla., May 12, 1936. Claims use since Feb. 14, 1936.

Sylk—This in solid letters describing shampoos. Filed by Clairol, Inc., New York, Mar. 7, 1936. Claims use since Jan. 15, 1936.

Magic Mosquito—This on reverse plate describing insecticide. Filed by Sallade & Co., New York, Apr. 21, 1936. Claims use since July 1, 1885.

Ox-Gen—This in solid letters describing dentifrice. Filed by Ox-Gen Laboratories, Houston, Texas, May 11, 1936. Claims use since Jan. 1, 1936.

HUMBLE—This on oval shaped reverse plate describing metal polishes, detergents, etc. Filed by Humble Oil & Refining Co., Houston, Texas, June 1, 1936. Claims use since Feb. 10, 1936.

DERBY—This in solid letters describing wall paper cleaner. Filed by Kutol Products Co., Cincinnati, June 1, 1936. Claims use since Apr. 27, 1936.

Painter's Dream — This in solid letters describing cleaning powder. Filed by Wickham Co., Riverside, Mich., June 1, 1936. Claims use since April, 1934.

Master Foam—This in solid letters with sketch of soap bubbles, describing liquid fabric cleaner. Filed by Master Foam Laboratories, Dayton, Ohio, June 3, 1936. Claims use since Jan. 2, 1933.

FARM-O—This on reverse plate describing insect repellent. Filed by Farm-O Mfg. Co., Decatur, Ill., Aug. 12, 1935. Claims use since 1924.

G. O. S.—This in solid letters describing liquid shampoo. Filed by Parker Herbex Corp., New York, Apr. 3, 1936. Claims use since Feb. 20, 1936.

SKETOLENE—This in solid letters with sketch of mosquito describing insect repellent. Filed by Frederick Phillips Case, Munising, Mich., Apr. 13, 1936. Claims use since June 1, 1935.

POLYDENT—This in solid letters with sketch of parrot describing tooth powder. Filed by Polydent Co., Chicago, June 6, 1936. Claims use since Aug. 6, 1935.

PLYMOUTH HI-GLO — First word in solid letters, second in script, describing floor wax. Filed by Plymouth Wholesale Drygoods Corp., New York, June 1, 1936. Claims use since Jan. 3, 1936.

NEXT—This in outlined letters describing shaving cream and bath soap. Filed by Crazy Water Co., Mineral Wells, Tex., May 19, 1936. Claims use since April 15, 1936.

ANOLITE—This in solid letters describing detergent. Filed by R. R. Street & Co., Chicago, June 1, 1936. Claims use since 1928.

Insto—This in outline letters describing hand cleaning compound. Filed by Insto Co., Los Angeles, June 12, 1936. Claims use since August, 1918.

CHATELLE — This in heavy script describing shampoos. Filed by Chatelle Co., Chicago, Feb. 12, 1934. Claims use since Nov. 1, 1933.

HALOPHEN—This in solid letters describing antiseptic. Filed by Frederick Klein, New York, June 1, 1936. Claims use since May, 1931.

CAMPHORNAPS—This in solid letters on diamond-shaped background, describing insecticides. Filed by Mabex Co., Philadelphia, June 2, 1936. Claims use since May 1, 1935.

LITE-NING—This in solid letters describing cleansing powder. Filed by DuBois Soap Co., Cincinnati, Nov. 27, 1935. Claims use since April 5, 1935.

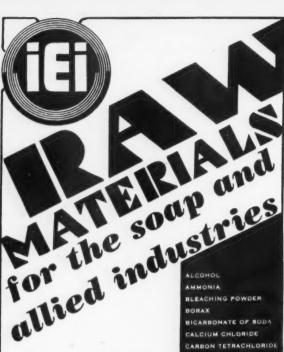
Famous Rhine Lavender— This in solid letters with floral background describing bath soap, toilet soap, shaving soap, etc. Filed by Ferd. Mulhens, Inc., New York, Mar. 17, 1936. Claims use since Jan. 20, 1936.

BOTANA—This in script describing soap. Filed by R. A. Jones & Co., Covington, Ky., June 16, 1936. Claims use since May 15, 1936.

VITA—This in solid letters describing toilet soap. Filed by Wolf Creek Soap Co., Dayton, Ohio, June 18, 1936. Claims use since July, 1933.

WHITE CROSS AUTO-SEPTINE
—This in solid letters describing antiseptic. Filed by Rajore Co., Philadelphia, Feb. 24, 1936. Claims use since Feb. 10, 1936.

SUN BRYTE—This in outlined letters describing bleach, disinfectant and deodorant. Filed by Sun Bryte



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FACTORIES: JERSEY CITY, N. J., NIAGARA FALLS, N. Y.

Wash Products, Chicago, Mar. 2, 1936. Claims use since April, 1932.

OMNICIDE—This in solid letters with silhouette of gnome, describing insecticide. Filed by Superior Chemical Products, Inc., Philadelphia, June 19, 1936. Claims use since Dec. 1, 1935.

Trade Marks Granted

337,060. Insecticide. William J. Hodgkinson, Jr., Brooklyn. Filed March 30, 1935. Serial No. 363,217. Published June 4, 1935. Class 6.

337,338. Antiseptic Germicidal Solution. Kolsterol, Inc., Detroit. Filed June 3, 1935. Serial No. 365,758. Published April 7, 1936. Class 6.

337,339. Antiseptic Germicidal Solution. Kolsterol, Inc., Detroit. Filed March 2, 1936. Serial No. 375,443. Published May 12, 1936. Class 6.

337,415. Furniture Polish and Floor Wax. Socony-Vacuum Oil Co., New York. Filed April 16, 1936. Serial No. 377,285. Published May 26, 1936. Class 16.

337,472. Shampoo. Golden Glint Co., Seattle Wash. Filed February 10, 1936. Serial No. 374,660. Published May 19, 1936. Class 6.

337,474. Insecticides. Masury-Young Co., Charlestown, Mass. Filed February 14, 1936. Serial No. 374,-840. Published May 26, 1936. Class 6.

337,477. Antiseptic, Germicide, Deodorant, and Disinfectant. Veralin, Inc., Chicago. Filed February 17, 1936. Serial No. 374,950. Published May 26, 1936. Class 6.

337,496. Shoe Polishes. Polyshine, Inc., Rochester. Filed March 31, 1936. Serial No. 376,641. Published June 2, 1936. Class 4.

337,503. Shaving Cream. Mennen Co., Newark, N. J. Filed March 18, 1936. Serial No. 376,129. Published May 26, 1936. Class 4.

337,506. Insecticides, Disinfectants, Fumigants. Gordon G. Clark, Springfield, Mass. Filed January 10, 1936. Serial No. 373,521. Published May 26, 1936. Class 6.

337,513. Shampoo. Harley Soap Co., Philadelphia. Filed December 6, 1935. Serial No. 372,323. Published May 19, 1936. Class 6.

337,514. Cleaning Preparation. Rieck & Johnston, Tyler, Tex. Filed December 20, 1935. Serial No. 372,894. Published May 19, 1936. Class 4.

337,516. Grease and Dirt Remover. Kill Odor Co., Cleveland. Filed December 5, 1934. Serial No. 358,935. Published February 26, 1935. Class 4.

337,525. Cleaner. Kotoform Corp. of America, South Bend, Ind. Filed December 20, 1933. Serial No. 345,146. Published March 13, 1934. Class 4.

337,537. Shoe Cleaner. Knomark Manufacturing Co., Brooklyn. Filed March 27, 1936. Serial No. 376,476. Published May 19, 1936. Class 4.

337,555. Cleaning Compound. Warren Refining and Chemical Co., Cleveland. Filed April 10, 1936. Serial No. 377,074. Published May 26, 1936. Class 4.

337,590. Water Softener. Aaron Chaitkin, doing business as Bidwell Wholesale Grocery Co., Pittsburgh, Pa. Filed March 13, 1936. Serial No. 375,930. Published May 19, 1936. Class 6.

337,611. Cleaner. Socony-Vacuum Oil Co., New York. Filed April 16, 1936. Serial No. 377,286. Published June 2, 1936. Class 4.

337,612. Fabric Cleaner. Industrial Chemical Products Co., Detroit. Filed April 10, 1936. Serial No. 377,203. Published June 2, 1936. Class 4.

337,613. Soap and Soap Chips. Colgate-Palmolive-Peet Co., Jersey City. Filed April 17, 1936. Serial No. 377,303. Published June 2, 1936. Class 4.

337,622. Shoe Cleaner. Sheffield Co., New London, Conn. Filed April 21, 1936. Serial No. 377,478. Published June 2, 1936. Class 4.

337,642. Preparation for Use in Exterminating Termites. Contract Waterproofing Co., St. Louis. Filed February 20, 1936. Serial No. 375,037. Published June 2, 1936. Class 6.

Chicago Associations Golf

A group of fifty members and guests of the golf auxiliary of the Chicago Drug and Chemical and Chicago Perfumery, Soap and Extract Associations was on hand for the August 18th tourney held at the Glen Oak Country Club. Prize winners were as follows: Class A-lst, J. T. James 84-12-72; 2nd, E. F. Smith 79-5-74; 3rd, F. E. Furst 88-14-74; Class B-1st, H. A. Baumstark 90-18-72; 2nd, Ray Morris 91-21-70; 3rd, W. H. Jelly 93-18-75; Class C-1st. J. H. Helfrich 109-32-77: 2nd. R. C. Jennings 108-28-80; 3rd, I. E. Smith 113-31-82. Guest prizes were won by B. Markley with 91-25-66 and A. E. Sewell with 98-28-70. Following dinner, plans were discussed for entertaining the Detroit association on September 15th at Olympia Field Country Club.

Laird to Australia

Robert P. Laird, formerly chemist in the Winnepeg, Canada, plant of the J. R. Watkins Co., Winona, Minn., sailed Aug. 18 on the Matson Line steamer "Monterey", for Melbourne, Australia, where he becomes chemist in charge of production for the new Watkins plant now building there and which it is expected will be in production this fall.

Bristol-Myers Earnings Up

Bristol-Myers Co. earned net profit of \$519,464 in the three months ended June 30, equal to 76c per share on capital stock, and comparing with \$456,781 during the same period last year, which amounted to 66c per share on stock then outstanding.

Agent for Allied Alcohol

Arthur C. Trask Co., sulfonated oils and tanning preparations, Chicago, has been appointed sales agent for Allied Industrial Alcohol Corporation of New York. Stocks will be carried in Chicago. William J. Mitchel, who has had over twenty-five years experience in the alcohol business, will handle this division for the Trask Company.



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Raw Material Markets

(As of August 26, 1936)

YEW YORK - Developments in the market for soap raw materials this period centered around the disturbed situation in Spain. With trade with Spain practically shut off by the bitter civil war there, prices of Spanish raw materials shot skyward. Olive oil skyrocketed in price and with it in the upward line went the prices of all olive oil derived soaps. Spanish essential oils such as thyme, spike lavender, rosemary, pennyroyal, etc., also shared in the upward move. With spot stocks believed to be short there was very little actual trading at the higher levels, most suppliers merely taking care of their regular accounts and husbanding their small stocks. Rosin prices also moved sharply upward this period. Buyers seem to have missed their market on this commodity badly and are being forced to buy in now on the rise.

OILS AND FATS Coconut Oil

Both copra and coconut oil were quoted higher in all markets this period, with buying interest being stimulated by the upward course of competing products. New York tanks of Manila oil are quoted currently at 47% c per lb., a gain of 1/8c from last period.

Grease

Grease and stearin prices were advanced this period in company with other commodities, as reports of drought damage persisted. House grease is quoted currently at 53/4c per lb., and advance of 3/8c per lb. from a month ago.

Olive Oil

The fireworks in the fat and oil market were provided this period by olive oil and olive oil foots. With civil war raging in Spain and great uncertainty existing as to when and whether the Spanish crop will ever reach the market, prices were advanced sharply and held at a nominal level of \$1.35 per gal., an advance of 50c from prices quoted over the past few months. Soap makers were quick to advance the prices of their olive oil soaps, with powdered white U. S. P. being held nominally at 28 to 35c per lb. Olive oil castile bars have been advanced to 18 to 25c per lb., and the latest quotations on olive oil foot soap range upward from 11c.

Palm Oil

The strength in competing oils was reflected in firmer prices for all grades of palm oil this period, gains ranging from 14 to 1/2c per lb.

Tallow

Strength continued to feature the local tallow market and late this period city extra sold as high as 63/4c per lb., an advance of 5/8c from the level of last month. Sellers are reported to be in comfortable shape after their recent heavy sales, and there is no pressure of offerings. The new added 3c excise tax on imported tallow went into effect August 21, making importations practically impossible at least at present levels.

PERFUMING MATERIALS

Anise Oil

The decline in anise oil quotations was checked this period, and with the primary market quotations coming in at higher levels a moderate advance was noted in spot market prices. The range is now between 53 and 55c per lb.

Cassia Oil

The cassia oil market was still subject to competition this period, and quotations dropped once more to the basis of 90 to 95c per lb.

Lavender Oil

Spike lavender oil was advanced sharply, reflecting the fear that the Spanish civil war will check adequate shipments from this important producing area for some time to

come. The current market is around \$1.30 to \$1.35 per lb., with these prices listed as nominal.

Rosemary Oil

Quotations on this item were largely nominal, with sellers restricting their deliveries to old customers. Prices quoted ranged between 44 and 46c per lb. for the technical oil.

Thyme Oil

Another sharp advance was noted in thyme oil prices this period, with sellers restricting the quantity of oil sold and offering no firm prices except for immediate acceptance. Red thyme ranged between 80c and \$1.25 per lb.

NAVAL STORES

A heavy demand from consumers has sent the price of rosin upward in recent weeks. Some consumers seem to have held off too long with the mistaken expectation of lower prices. Now with reports of prospective crop reduction they are exercising a heavy demand on the rising market. Expected interference with shipments from Spain is another factor strengthening the American domestic market.

Solid Soap Dispenser

An apparatus for dispensing solid soap in the form of sections, pellets or discs consists of a receptacle in which a cake of soap can be mounted on a slide, and a suitable cutting knife arranged to slice off the piece of soap to be separated. Angel Gomez. Canadian Patent No. 359,543.

Offer New Soap Color

R. F. Revson Co. announce the production of a new soap color designated as Soap Fast Scarlet G. It produces orange to fiery red colors in soap that are fast to light and alkali. Samples are offered to those in the industry.

RAW MATERIALS

OLIVE OIL OUTS



FROM ALL PARTS OF THE WORLD

Castor Oil
Cocoanut Oil
Corn Oil
Cottonseed Oil
Palm Oil

Palm Kernel Oil

Peanut Oil Perilla Oil Rapeseed Oil Sesame Oil Soya Bean Oil Teaseed Oil Fatty Acids Lard Oils Neatsfoot Oil Oleo Stearine Stearic Acid White Olein Tallow Grease Lanolin Caustic Soda Soda Ash Caustic Potash Carbonate Potash Sal Soda

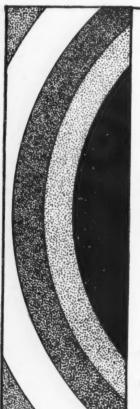
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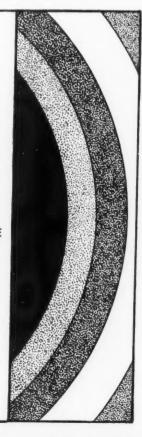
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TORONTO, CANADA



Raw Material Prices

(As of August 26, 1936)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals			Car lots, in bulk 100 lb.		\$1.05
	0 11	@ 101/	Soda Caustic, cont., wks., sld100 lb.	_	2.60
Acetone, C. P., drumslb.	\$.11	\$.12½ 100.00	Flake	-	3.00
Acid. Boric, bbls., 99½%ton Cresylic, drums gal.	95.00 .73	.75	Liquid, tanks100 lb.	1 10	2.25
Low boiling grade gal.	.78	.80	Soda Sal., bbls	1.10	1.30
Oxalic, bblslb.	.11 1/2	.121/4	Sodium Chloride (Salt)ton	11.40	.08 34
Adeps Lanae, hydrous, bblslb.	.16	.18	Sodium Fluoride, bblslb.	.19	
Anhydrous, bbls lb.	.17	.19	Sodium Hydrosulphite, bblslb.	.80	.20 1.20
Alcohol, Ethyl, U. S. P., bblsgal.	4.13	4.25	Sodium Silicate, 40 deg., drum. 100 lb. Drums, 52 deg. wks 100 lb.	1.35	1.75
Complete Denat., SD 1, drums, ex. gal.	.33	.43	Tar Acid Oils, 15-25%gal.	.21	.24
Alum. Potash lump lb.	.031/4	.031/2	Trisodium Phosphate, bags, bblslb.	.03	.03 1/2
Ammonia Water, 26°, drums, wkslb.	.021/2	.02 %	Zinc Oxide, lead freelb.	.06	.061/4
Ammonium Carbonate, tech., bblslb.	.08	.12½	Zinc Stearate, bblslb.	.20	.22
Bleaching Powder, drums100 lb.	2.25	2.60			
Borax, pd., cryst., bbls., kegston	50.00	55.00	Olla Data Carre		
Carbon Tetrachloride, car lotslb. L. C. Llb.	.07	.05 1/4	Oils — Fats — Greas	es	
Caustic, see Soda Caustic, Potash Caustic	.01	.00 /2		*0.0/	444/
China Clay, fillerton	10.00	25.00	Castor, No. 1, bblslb.	.10 3/4	.11 1/2
Cresol, U. S. P., drums	.10	.101/2	No. 3, bblslb.	.1074	.11
Creosote Oil gal.	.121/2	.131/2	Manila, tanks, N. Ylb.	_	.04 1/8
Feldsparton	14.00	15.00	Tank, Pacific coastlb.	_	.04 %
(200 to 325 mesh)			Cod, Newfoundland, bblsgal.	.43	Nom.
Formaldehyde, bbls	.06	.07	Copra, bulk, coastlb.	.0275	.0280
Fullers Earthton	15.00	24.00	Corn, tanks, millslb.	.09 3/4	Nom.
Glycerine, C. P., drums lb.	$.15\frac{1}{2}$.17	Cottonseed, crude, tanks, milllb. PSYlb.	.09	$.09\frac{1}{8}$ $.10\frac{1}{2}$
Dynamite, drums	.151/2	.16	Degras, Amer., bbls lb.	.05 1/2	.06
Saponification, drums lb.	.14 .13	.15 .14	English, bblslb.	.05 34	.061/4
Soap lye, drumslb. Hexalin, drumslb.		.30	Neutral, bblslb.	.081/2	.101/2
Kieselguhr, bagston	_	35.00	Greases, choice white bbls., N. Ylb.	$.06\frac{1}{2}$.081/4
Lanolin, see Adeps Lanae.	_	30.00	Yellowlb.	.05 %	.05 34
Lime, live, bblsper bbl.	1.70	2.20	Houselb. Lard, Citylb.	$.12\frac{1}{2}$.12 34
Mercury Bichloride, kegslb.	.71	.76	Compound tierceslb.	.121/2	.12 3/4
Naphthalene, ref. flakes, bblslb.	.071/4	.071/2	Lard Oil,		101/
Nitrobenzene (Myrbane) drumslb.	.09	.11	Extra, bbls lb. Extra, No. 1, bbls		$.10\frac{1}{2}$ $.09\frac{1}{2}$
Paradichlorbenzene, bbls., kegslb.	.16	.25	No. 2, bblslb.		.09
Petrolatum, bbls. (as to color)lb.	.02	.071/4	Linseed, raw, bbls., spotlb.	.1030	.1050
Phenol, (Carbolic Acid), drumslb.	.141/4	.16	Tanks, rawlb.	.0970	.0990
Pine Oil, bblsgal.	.59	.64	Boiled, 5 bbls. lotslb. Menhaden, Crude, tanks, Baltgal.	.1150 .27	.1170 Nom.
Potash, Caustic, drumslb.	.061/4	.06 1/2	Oleo Oil, No. 1, bbls., N. Ylb.		.11
Flakelb.	.07	.071/4	No. 2, bbls., N. Ylb.	-	.101/2
Potassium Carbonate, solidlb.	.071/4	.09 1/2	Olive, denatured, bbls., N. Ygal.	1.35	Nom. .09 1/4
Liquidlb.	.03 1/2	.03 %	Foots, bbls., N. Ylb. Palmlb.	.09 1/8	.05
Pumice Stone, powder100 lb.	3.00	4.00	Palm Kernel, casks, denaturedlb.	.05	Nom.
Rosins (600 lb. bbls. gross for net)—	6.85	7.27	Peanut, domestic tankslb.	$.09\frac{1}{2}$	Nom.
Grade B to H, basis 280 lbsbbl. Grade K to Nbbl.	7.27	7.40	Red Oil, distilled bbls	.09 1/8	.10 1/8
Grade WG and Xbbl.	7.85	8.55	Saponified bbls. lb. Tanks lb.	.05 78	.081/4
Wood FF Spotbbl.	6.87	7.90	Soya Bean, domestic tanks, N. Y. lb.	_	.083/4
Rotten Stone, pwd. bblslb.	.02 1/2	.04 1/2	Stearic Acid,	001/	101/
Silicaton	20.00	27.00	Double pressedlb.	$.09\frac{1}{2}$ $.12\frac{1}{4}$	$.10\frac{1}{2}$ $.13\frac{1}{4}$
Soap, Mottledlb.	.04 1/8	.04 % .25	Triple pressed, bgslb. Stearine, oleo, bbls	.101/4	.10 3/4
Olive Castile, barslb. Olive Oil Footlb.	.11	.111/2	Tallow, special, f.o.b. plantlb.	_	$.06\frac{1}{2}$
Powdered White, U. S. Plb.	.28	.35	City, ex. loose, f.o.b. plantlb.	_	.06 3/4
Green, U. S. Plb.	.06 1/2	.08	Tollow oils saidless tonks N V lb		.09
Tallow Chips, 88%lb.	$.07\frac{1}{2}$.08	Tallow, oils, acidless, tanks, N. Ylb. Bbls., c/1 N. Ylb.	_	.091/2
Whale Oil, bblslb. Soda Ash, cont., wks., bags, bbls. 100 lb.	1.23	1.50	Whale, refinedlb.	.071/4	.071/2
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-	22	CAR	O.T.	43	-	112

Aromatic Chemicals

Almond, Bitter, U. S. P. lb. Bitter, F. F. P. A. lb. Sweet, cans lb.	\$2.00 2.25 .65	\$2.50 2.75 .68	Acetophenone, C. P lb. Amyl Cinnamic Aldehyde lb. Anethol	\$1.25 1.55 1.05	\$2.25 2.00 1.10
Anise, cans U. S. P lb.	.53	.55	Benzaldehyde, techlb.	.60	.65
Bay tins	1.25	1.50	U. S. P. lb. Benzyl, Acetate lb.	1.20 .56	1.30 1.00
Bergamot, coppers lb. Artificiallb.	2.20	2.50		.65	1.15
	1.00	1.30	Alcohol lb. Citrallb.	2.00	2.30
Birch Tar, rect. tinslb.	.75	.80	Citronellal lb. Citronellollb.	$\frac{1.25}{1.90}$	$\frac{1.50}{2.15}$
Crude, tinslb. Bois de Rose, Brazilianlb.	.14	.16	Citronellyl Acetatelb.	4.50	7.00
Cayennelb.	$\frac{1.25}{2.30}$	$\frac{1.40}{2.50}$	Coumarinlb.	3.10	3.30
Cade, canslb.	.26	.30	Cymene, drumsgal. Diphenyl oxide	.90 .70	$\frac{1.25}{1.00}$
Cajeput, native, tinslb.	.45	.46	Eucalyptol, U. S. P.	.50	.55
Calamus, tinslb.	2.75	3.00	Eucalyptol, U. S. P. lb. Eugenol, U. S. P. lb.	2.00	2.50
Camphor, Sassy, drums lb.	131/2	.14	Geraniol, Domesticlb. Importedlb.	$\frac{.75}{2.00}$	2.00 3.00
White, drums	$.14\frac{1}{2}$.15	Geranyl Acetate lb. Heliotropinlb.	2.00	2.50
Cananga, native, tins	$\frac{2.30}{2.60}$	$\frac{2.35}{2.65}$	Heliotropinlb.	2.00	2.10
Caraway Leed	2.00	2.25	Hydroxycitronellallb. Indol, C. Poz.	$\frac{3.50}{2.00}$	9.00 2.50
Cassia, Redistilled, U. S. P lb.	.90	.95	Iononelb.	3.25	5.50
Cedar Leaf, tins	.90	1.00	Iso-Eugenollb. Linaloollb.	3.00	4.25
Cedar Wood, light, drumslb.	.18	.22	Linalyl Acetatelb.	$\frac{1.65}{1.50}$	2.25 3.25
Citronella, Java, drums	.30	.31	Menthollb.	3.50	3.60
Citronella, Ceylon, drumslb.	.18	.19	Methyl Acetophenone	2.50	3.00
			Anthranilatelb. Paracresollb.	2.10 4.50	2.75 6.00
Cloves, U. S. P., tins		1.00	Salicylate, U. S. Plb.	.40	.45
Eucalyptus, Austl., U. S. P., canslb.	.35	.36	Musk Ambrettelb.	4.20	5.00
Fennel, U. S. P., tins	1.05	1.10	Ketonelb. Xylenelb.	$\frac{4.35}{1.25}$	5.25 2.00
Geranium, African, canslb.	5.25	6.75	Phenylacetaldehydelb.	4.80	8.00
Bourbon, tins lb.	5.50	7.00	Phenylacetic Acid, 1 lb., botlb. Phenylethyl Alcohol, 1 lb. botlb.	$\frac{2.50}{4.00}$	3.25 4.50
Hemlock, tinslb.	1.00	1.05	Rhodinollb.	5.75	8.00
Lavender, U. S. P., tins lb.	3.25	7.00	Safrollb.	.54	.57
Spike, Spanish, canslb.	1.30	1.60	Terpineol, C. P., 1,000 lb. drs. lb. Cans lb.	.23 .27	.25 .30
Lemon, Ital., U. S. P.	1.75	2.50	Terpinyl Acetate, 25 lb. canslb.	.80	.90
Lemongrass, native, cans lb.	.43	.45	Thymol, U. S. P lb. Vanillin, U. S. P lb.	1.40	1.50
Linaloe, Mex., caseslb.	1.25	1.30	Vanillin, U. S. P. lb. Yara Yaralb.	3.75 1.30	$\frac{4.00}{2.00}$
Nutmeg, U. S. P., tinslb.	1.20	1.35			2100
	2.30		Insecticide Materia	ls	
Orange, Sweet W. Ind., tins lb. Italian cop lb.	2.35	$\frac{2.35}{3.25}$			
Distilled lb.		.90	Insect powder, bblslb. Concentrated Extract	.17	.18
Origanum, cans, techlb.	.80	Nom.	5 to 1gal.	1.25	1.30
		6.00	20 to 1gal.	4.20	4.40
	4.75		30 to 1gal. Derris, powder—4% lb.	6.15	6.45 .42
Pennyroyal, domlb.	1.75	2.00	Derris, powder—4%lb. Derris, powder—5%lb.	.24	.48
Importedlb.	1.40	1.45	Cube, powder—4% lb. Cube, powder—5% lb.	.34	.37 .42
Peppermint, nat., caseslb.	2.65	2.90	Cube, powder—576	.40	.44
Redis., U. S. P., canslb.	2.90	3.15	Gums		
Petit, grain, S. A., tins lb.	1.00	1.15	A - 1 '- A - 1 O/-	00.8/	40
Pine Needle, Siberianlb.	.90	.95	Arabic, Amb. Sts. lb. White, powdered lb.	.09%	.10 .14
Rose, Naturaloz.	5.25	18.00	Karaya, powdered No. 1	$.09\frac{1}{2}$.10
Artificialoz.	2.00	3.00	Tragacanth, Aleppo, No. 1lb. Sorts	1.75	1.80 .35
Rosemary, U. S. P., tinslb.	.48	.50			
Tech., lb. tinslb.	.44	.46	717		
Sandalwood, E. Ind., U. S. Plb.	4.80	5.50	Waxes		
Sassafras, U. S. P	.75 .37	1.00 .38	Bees, whitelb. African, bgs. lb.	.36 .24	.38 .25
Spearmint, U. S. Plb.	2.00	2.05	Refined, yel. lb. Candelilla, bgs lb.	.28 .16	.30 .17
Thyme, red., U. S. Plb.	.80	1.25	Carnauba, No. 1 lb. No. 2, yellb.	.46	$.47$ $.45\frac{1}{2}$
White, U. S. Plb.	.85	1.30	No. 3, chalky lb.	.36	.37
Vetivert, Bourbonlb.	10.50	11.00	Ceresin yellowlb.	.36	.38
Ylang Ylang, Bourbonlb.	4.60	7.00	Paraffin, ref. 125-130lb.	.041/2	.04 3/4



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PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, Oil & Fat Industries.

SILICATE SOAPS

In making soaps containing silicate, especially in the smaller plants, it is advisable to saponify the fat charge partially in one pan and then transfer to a second pan, where the silicate solution is stirred in. Saponification is then completed by further additions of soda and potash. The latter is important and plays an essential part in the manufacture of silicate soaps, in increasing stability and water-combining power.

There has been much controversy as to the effect of this type of soap on the wash. In many cases where complaints of injuries effects are made, precise data are lacking, especially as to the kind of water used. Soft water is obviously better than hard, although in some respects a silicated soap does not form in hard water such objectionable compounds as is the case with soaps of full-fatty-acid content. In the latter case, these deposits may be precipitated within the texture of the fabric and are usually sticky in nature and difficult to remove by wringing or rinsing, besides giving the garment a greasy feel and sometimes an unpleasant odor. With silicate soap the compounds formed are more pulverulent and thus more easily re-

It has sometimes been stated that these silicate compounds form hard sharp-pointed crystals which, when accumulated as a deposit in the texture of the fabric, may cause

weakening of the fibers. It is not certain that such crystals are calcium silicate, but if they are silicate compounds they will be highly hydroscopic, swelling easily, and of a colloidal nature, thus constituting soft bodies which on drying, are easily reduced to powder. In most cases they would probably be removed by thorough rinsing. Some tests are reported which show that if such deposits really are left in the fabric, they often strengthen it, at least to a slight extent, rather than weaken it. This does not, however, justify the use of hard water with silicate soaps.

Another objection to the use of hard water, both for full-fattyacid and silicate soaps, is the very considerable waste of soap. It is a debatable point whether such waste is greater with full-fatty-acid than with silicate soaps. The question of the economical use of different kinds of soaps with water of varying degrees of hardness down to completely soft water, is a matter of considerable practical interest on which there has not been a great deal of information published. In general, of course, soft water is the more economical.

Another important consideration in connection with silicate soaps is the extent of hydrolysis that may be produced. This again depends on the precise composition of the soap and the conditions of use. Hydrolysis alkalinity may be considerably more with silicate soaps, causing increased alkalinity in the wash. *Perfumery & Essential Oil Record* **27**, 307-8 (1936).

Analysis of various olive oils confirms the conclusion that oils from the warmer climates are higher in solid glycerides and linoleins than those from more temperate climates. The dark color and somewhat acid taste of these oils classifies them more as cutting oils. Vito Brandonisio. Chimica e industria (Italy) 18, 14-6 (1936).

Surface-tension measurements, gold numbers (Zsigmondy), and foam numbers were made at 30° C. on the sodium and potassium salts of the C4-C18 saturated acids and C18 unsaturated and hydroxylated acids. These studies were made on the pure salts, on mixtures with water and salt, and on mixtures with glycerol and water. The salts of the lower acids have the highest surface tension and gold numbers but the lowest foam numbers. The increase in the number of carbon atoms of the saturated acids up to myristic is accompanied by increasing foam numbers and decreasing surface tension and gold numbers. Beyond myristic acid the surface tension and gold numbers increase, while the foam numbers become smaller as the carbon atoms increase. In the unsaturated acids the foam numbers decrease and the gold numbers and surface tension increase with increasing degree of unsaturation. These results agree well with the detergent properties of the soaps. Determination of the same results for two saponins (shikekai and reetha) indicate that they are suitable for detergent purposes. N. N. Godbole and Sadgopal. Kolloid-Z. 75, 193-201 (1936).

Liquid Rosin

Talloil or liquid rosin is produced as a by-product in the woodpulp industry in various countries of northern Europe. It consists of a crude mixture of fatty acids and resin acids. The approximate yield is 35-40 kilos per ton of pulp, so that in view of the enormous dimensions to which the wood-pulp and paper industry has grown, there are likely to be correspondingly large amounts of talloil available.

The fatty acids, which usually comprise 50-75 per cent of the total, are for the most part oleic and linoleic, with small amounts of palmitic, iso-linoleic and others; while the resin acids are chiefly oxyacids and abietic acid. The composition of talloil, and especially the relative proportions of the fatty acids and of the resin acids, varies appreciably with the kind of wood used for pulping. In Sweden and Finland a great part of the refined talloil is used for soapmaking, and some attempt has been made to introduce it into Germany for this purpose.

Soaps made with talloil are easily soluble and have good lathering and emulsifying powers, but in most cases they have a decided odor which to many is somewhat unpleasant. It should be possible to find a means for removing or masking this odor. A good many patents have been taken out for refining talloil, and especially for separating the fatty from the resin acids. Attempts are also being made to find other uses for the material besides soapmaking, such as in the preparation of emulsions, fruit tree sprays, and in other directions where such material should be useful.

Perfumery & Essential Oil Rec. 27, 308 (1936). (To obviate numerous inquiries for "liquid rosin" which we know we shall receive we desire to point out that the American source of this material,—called Indusoil,—is the Industrial Chemical Sales Co., 230 Park Ave., New York.—Ed.)

Hydrogen vs. Iodine Value

Numerous cases occur where an accurate and reliable method for measuring unsaturation is required. By halogen addition methods, in many instances halogen absorption is incomplete. The advantages of measuring unsaturation by catalytic hydrogen addition are as follows: (1) Undesirable side reactions like substitution cannot occur. (2) In many cases where halogen addition cannot be depended on hydrogen addition is a true measure of unsaturation. (3) The hydrogenated product may be isolated quantitatively and further investigated. method developed uses palladium or platinum on active carbon as a catalyst. A complicated setup of apparatus is described for carrying out the procedure. The final result is based on the measurement by difference of the volume of hydrogen reacting. The results show a deviation from theoretical of about ±1 per cent for the determination of the hydrogen value of fatty acids and esters. The iodine value by the Wijs method may drop as low as 50 per cent of theoretical. W. J. C. de Kok, H. I. Waterman and H. A. van Westen. J. Soc. Chem. Ind. 55, 225-8T (1936).

New Glycerine Process

A new process for manufacturing glycerine from broken rice and rice waste has recently been perfected in Italy. From 100 kilos of broken rice it is said that 30.4 kilos of glycerine, 7.8 kilos of ethyl alcohol, and 7.1 kilos of vegetable casein can be obtained at a relatively low cost. The apparatus required consists largely of vats kept at a constant temperature, filtering apparatus, rotary centrifugal machines,

and apparatus for the preparation of starch-water. The raw materials are powdered rice, malt, sodium sulfite and brewer's yeast. Negotiations are said to be pending for the sale of the process for Italy to one of the largest Italian soap companies,—a producer of crude glycerine. Perfumery & Essential Oil Rec. 27, 308 (1936).

Sulfonation of Soybean Oil

The action of sulfuric acid on such unsaturated oils as soybean and herring oils is somewhat selective with respect to the degree of unsaturation of the fatty acids. With a relatively small amount of sulfuric acid at a lower temperature, the components with a comparatively high degree of unsaturation were acted on by sulfuric acid preferentially. A considerable amount of the sulfuric esters formed during the sulfonation of unsaturated oils are decomposed subsequently. Kinjiro Winokuchi and Masashi Toriyama. J. Soc. Chem. Ind. Japan 39, Suppl. binding 94 (1936).

Oxidation of Fats

The rate of oxidation of fats and oils can be classified into two types. The Evers and Schmidt method was used for determining the rate of oxidation for several oils. Saturated fatty acids and olefinic acids give curves of parabolic type (I), while the higher unsaturated acids with conjugated double bonds present Sshaped curves (II). The velocity of type II is greater than that of type I, and 5-10 per cent of the former in a mixture gives the S-shaped curve. Antioxidants do not affect the type of curve but lower the rate of oxidation; the final amount of oxygen absorbed is the same. The protection afforded by an antioxidant is proportional to the amount used up to a certain limit, above which the activity relationship decreases rapidly, and it is possible that there is a limit in the amount of antioxidant above which no further protection is afforded. E. L. Lederer. Ole, Fette, Wachse 1936, No. 1, 5 pp.

Products and Processes

Lumps in Soap Boiling

Observations in soap boiling over a period of years have led to the conclusion that some factors inherent in the manufacturing process produce inhomogeneity of the mass in the kettle through insufficient mixing and insufficient heating. lumps which formed during the industrial boiling of 40 per cent soap were found to be of two types. One kind of lump contained acid soap and corresponding to a content of about 80 per cent fatty acids. The other type of lump contained middle soap or "gum" soap and corresponded to a content of about 43 per cent of fatty acids.

These factors influence the whole process of boiling and are often reflected in analytical discrepancies between samples taken from the upper layer and the real average content of soap present in the kettle. A detailed investigation of many boilings showed that very often there is a protracted increase of fatty acids in the soap, from the bottom of the kettle upwards. After cooling there may be more fatty acid in the upper layer. This emphasizes the fact that intensive mixing of the mass, keeping the temperature as high as possible, etc., are of great importance. A. S. Kluchevich and L. T. Averko-Antonovich. Ind. Eng. Chem. 28, 949-52 (1936).

Fatty Alcohol Sulfates

While surface tension measurements have been made previously of the Gardinols and Igepons, these do not always agree among themselves, presumably because some worked with technical products and others with purified products. Measurements were therefore made with both technical and carefully purified products, using Igepon T powder, Igepon A powder and Gardinol WA concentrated powder. Determinations were made with a Traube stalagmometer at 20° and 80° C., and con-

centrations varying from 0.1 to 1.0 gram per liter. The technical products showed a greater decrease in surface tension than the purified products of the same concentration. (Ed Note. — Examination of the curves indicates that this does not hold true for the Gardinol product.) Addition of sodium sulfate to the purified products resulted in a decrease in surface tension. Weltzien and H. Ottensmeyer. Fette und Seifen 43, 91-3 (1936).

Peroxide Shaving Soap

A shaving soap contains magnesium peroxide 1000, milk sugar 200, gum arabic 50 and a hydrogen peroxide compound of carbamide 5 parts by weight. A similar example contains magnesium peroxide 1500, gum arabic 300, magnesium carbonate 3500, milk sugar 200, and a hydrogen peroxide compound of carbamide 60 parts by weight. Victor Dzialoschinsky. French Patent No. 794.877.

Powdered Hand Cleaner

A new hand cleaner is represented as being free from any injurious chemicals and is said to remove paint, ink, grease and oil stains without difficulty. The product is called Slik, sold by the Caire Manufacturing Company. It comes in powder form. For home use it is furnished in sprinkler-top containers, while for shops, etc., a wall-type dispenser would be used.

Half-Boiled Soap

A basic fat charge for soap made by the half-boiled process is 85 parts of prime tallow to 15 parts of Cochin coconut oil. This can be varied in numerous ways, for example, by replacing part of the tallow with bleached palm oil (20-25 per cent) or by castor oil (about 5 per cent), when a relatively large amount of hardened Japanese fish

oils can be used. If the latter is used, the proportion of coconut oil should be increased in order to have good foaming power. Seifensieder-Ztg. 63, 541 (1936).

Phospho-Sulfonate Detergent

A cleansing, wetting and dispersing agent consists of a nonaromatic compound stable to lime containing an aliphatic residue with at least 6 carbon atoms and a water-solubilizing group, salts of phosphoric acid of lower water content than orthophosphoric acid, and aromatic sulfonic acids. An example contains sodium sulfate, sodium pyrophosphate, a-naphthalenesulfonate and the sodium salt of crude dodecyl sulfuric ester. Henkel & Cie. G.m.b.H. British Patent No. 443,487.

Emulsifying Agent

An emulsifying and wetting agent consists of an alcohol containing 6-22 carbon atoms, which is emulsified with the aid of a protein treated with alkali, for example, casein warmed to 180° C. with an aqueous solution of borax, ammonia, trisodium phosphate or soda ash. The emulsion is treated with sulfuric acid and then neutralized. The pasty product may be dried and ground. Wilfred E. Billinghame. British Patent No. 443,719.

Soap Fillers

Soaps used alone, in addition to their intrinsic function of cleansing, are called upon to neutralize the acidity of wash water and soiled fabrics, to precipitated hardness-producing agents, and to produce a favorable hydrogen-ion concentration. In spite of these known facts, it is surprising to learn that as little as 20 per cent of the soap may be utilized for its intrinsic purpose, that is, as a surface-active substance and emulsifying agent. It is estimated that 46 per cent would be used to neutralize the various acidic components and 26 per cent to precipitate hardness-forming agents (from water with a hardness of 15° on the German scale). These considerations

Pot Sta		Pure Soap	Soda Ash	Water
Laundry soap 3	7	48.72	20.0	21.74
Cleanser 5	11	0.60	74.5	20.13
Milk can cleanser 2	2	0.54	69.0	25.87
Laundry cleanser 6	3	0.46	60.0	25.57
Metal cleanser*	2 3	3.88	7.3	5.82
(* Together with 82 per cent water				

lead to the conclusion that that portion of the soap which acts solely as a basic electrolyte should be replaced by electrolytes such as soda ash, sodium silicate or trisodium phosphate.

Starch has also been used as a soap filler with more or less success. Such soaps produce a dense soft lather and increase the emulsifying power of soap-and-soda solutions. Products of this type have been analyzed and found to have the above compositions.

Starch powder can be mixed and ground with the soap. R. Heublum. Manufacturing Chemist 7, 209-10 (1936).

Fatty Acid Separation

Solid and liquid fatty acids are separated from their mixtures by precipitating the solid acids as metallic soaps of low solubility. Thus, peanut-oil fatty acids are dissolved in alcohol and lime-water added. After boiling for a short time, the solid fatty acid present precipitates as calcium soap which is separated. The liquid acid is then obtained by evaporating off the alcohol. Chemisches Laboratorium C. Stiepel. German Patent No. 625,577.

Rancidity and Light

Photochemical studies of rancidity development in oils shows that the induction period of an oil is appreciably lengthened when the oil is kept in the dark, and it is likewise lengthened when oils are protected from light by a green wrapper delimited by 4900 to 5800 Angstrom units. An oil which has been protected from light for a certain period and then exposed to light will develop rancidity in about the same time as will a fresh sample of the same oil exposed to light under the same conditions. The idea heretofore held that the time required for

rancidity to develop is associated with the peroxide value is no longer tenable, except in the case of accelerated tests. The rancidity of an oil has no necessary correlation with the development of peroxides. There is apparently a relationship between the increase in the peroxide value of an oil previously protected, which is allowed to become rancid, and the peroxide value of a fresh sample of the same oil when it becomes rancid. Mayne R. Coe. Oil & Soap 13, 197-9 (1936).

Bleach and Cleanser

Compositions for bleaching, washing and cleansing purposes consist of a mixture of 1 part by weight of oxygen-yielding compounds, 1-3 parts each of salts of phosphoric acids containing less water than ortho-phosphoric acid, and of inorganic alkaline-reacting salts. An example contains sodium perborate and sodium pyrophosphate together with calcined soda ash or trisodium phosphate or trisodium phosphate mixed with sodium metasilicate. Henkel & Cie. G.m.b.H. British Patent No. 443,498.

Hot Soap in Cartons

Hot liquid soap may be made to flow directly from the soap kettle or crutcher by way of suitable filling machines into foldable paper cartons. The cartons are supported against deformation and passed through a refrigerating channel which causes the exterior of each cake to set and harden quickly. Ultimate hardening throughout the soap cake takes place gradually while the soap is in transit or on the dealers' shelves. This method eliminates framing, slabbing, cutting and drying, and the accompanying consumption of time. space and labor. Settling of filling material is avoided, since each cake

is formed directly from the crutcher. Losses of scrap and waste are also eliminated. Ralph H. Potts (Armour & Company, assignee). U. S. Patent No. 2,031,853.

Cut Saponification Time

The time required for the saponification of fats and oils can be greatly reduced by adding only sufficient water necessary for complete saponification, heating the fats and oils to a little above their melting point, adding a small amount of hydrogen peroxide before adding the alkalies, and carefully controlling the temperature. Soc. Mury. French Patent No. 795,163.

Fish Oil Derivatives

The unsaturated acids of fish oil are polymerized by heating. The product is hydrogenated with nickel as catalyst. It is then esterified with methyl alcohol or ethyl alcohol and purified by fractional distillation. Gogo Yushi K. K. Japanese Patent No. 113,965.

Catalyst Without Carrier

Freshly prepared nickel carhonate, dried at 100-5°C, and ground to 2800 mesh per square cm. was reduced in sunflower oil with hydrogen at 270-85°C. for one hour, and used in the hydrogenation of sunflower and hempseed oils at 240°C. for 30 minutes, giving fat mixtures melting at 46-8° and 46-7.5°C., respectively. A contact mass prepared from nickel formate gave under these conditions equal results. The catalyst prepared from unground nickel carbonate showed no contact effect. Equally good results in hydrogenation of the oils were obtained with the use of a catalyst prepared from nickel carbonate containing 85-8 per cent of water as above. I. Petryaev. Masloboino Zhirovoe Delo 12, 145-6 (1936).

Calcium-Proof Sulfonated Oil

The sensitiveness of Turkeyred oil to calcium compounds is overcome by using the oil in admixture with sulfite cellulose waste lye and an alkali phosphate. The mixtures may be used as wetting or dispersing agents in the textile industry and may contain other ingredients. I. G. Farbenindustrie A.-G. British Patent No. 444,071.

Cleaning Agent

Cleaning agents are made from organic esters of formic acid or such hydrogenated products as decalin or tetralin, along with a saponified fatty material such as olein or stearin, and an abrasive. Jean M. G. de Schacken and Marcel E. A. Schmidt. French Patent No. 794,879.

Fatty Acids from Fats

By the use of a modified fractionating column, caprvlic, capric, lauric, myristic, palmitic and erucic acids have been obtained in a pure state in large amounts. When isolating the first three, the fatty acids serve as well as the methyl esters: for acids of higher molecular weight. the use of the methyl esters is preferable and sometimes necessary. The fatty acid composition of coconut oil is: Caproic acid 0.5, caprylic 9, capric 6.8, lauric 46.4, myristic 18, palmitic 9, stearic 1, oleic 7.6 and linoleic 1.6 per cent. A yield of 40 per cent of erucic acid was obtained from rapeseed oil. Samuel Lepkovsky. G. V. Feskov and Herbert M. Evans. J. Am. Chem. Soc. 58, 978-81 (1936).

Titrating Dark Fats

Several methods have been proposed for titrating dark fats and resins, and the use of special indicators suggested. A very simple method requires no change in known procedures nor no new apparatus. Flasks usually used for titrations have a capacity of 150 to 300 cc. but with dark colored fats, this gives such a thick layer of colored solution that it is practically impossible to see the change of indicator color. If. instead of this size of Erlenmeyer flask, one of 500 to 750 cc. if used. the layer of solution is thin enough so that it is not difficult to see the indicator change, even in the border

region. Since an Erlenmeyer flask of this size is too large to weigh the sample in, the fat sample is transferred from a regular weighing bottle in the usual way. As indicator, either thymolphthalein or alkali blue 6B is used. S. T. Seifensieder-Ztg. 63, 436-7 (1936).

Wetting Agents

Fatty alcohols are treated with the reaction products of sulfuric acid halohydrins and hydroxybutyric or hydroxyvaleric acids to give wetting and emulsifying agents for the textile, paper and leather industries. An example is the treatment of a mixture of butyro- and valero-lactones with chlorosulfonic acid. Oranienburger chemische Fabrik A.-G. German Patent No. 623,948.

Paste Cleaner

A paste cleaning composition is made of polymerized isobutylene, tetrahydronaphthalene, talcum, coagulated wood oil, mineral oil and glycerine. Standard Oil Development Co. German Patent No. 623,-924.

Abietinol in Cleaners

Cleansing and polishing compositions containing oils, fat or waxes as a base are characterized by the addition of abietinol or its derivatives as solvent or softener. Henkel & Cie, G.m.b.H. British Patent No. 442,772.

Catalysts in Oil Bleaching

Oils, glycerides, fatty acids and resins from oleaginous seeds, olives or raisins are bleached by treating a solution thereof in an organic solvent with bleaching clay, decolorizing carbon or kieselguhr in the presence of small amounts of organic or inorganic acids or salts acting as catalyst, e.g., aluminum sulfate, sulfuric acid, ortho-phosphoric acid, hydrofluoric acid, oxalic acid, sulfonic acids, soda ash, barium carbonate, calcium carbonate or Societe industrie barium oxide. chimiche. French Patent No. 794,-

Salt Water Soap

A soap which can be used with sea water is made with fatty compounds composed almost entirely of fatty acids of molecular weight below 210. Thus a fat extracted from Litsea sebifera or plants of like families is used. Louis A. Rouget and Jean D. Rouget. French Patent No. 795,220. A product containing a considerable amount of chlorine is made by introducing chlorine, preferably in liquid form, into a solution containing caustic soda, soda ash or calcium carbonate. The product may be dried and ground and mixed with a soap such as that of the preceding patent. Louis A. Rouget and Jean D. Rouget. French Patent No. 795,-

Sulfonated Textile Agent

An acid-resistant sulfonated oil is obtained from unsaturated fatty oils or acids by sulfonating with concentrated sulfuric acid in the presence of a dehydrating agent or with fuming sulfuric acid containing more than 10 per cent of SO, without the dehydrating agent at a temperature lower than room temperature. The product is purified by treating with salt and ether or with a concentrated solution of sodium sulfate. It is resistant to acid at high temperatures and is used in the textile industry. Daiichi Kogyo Seikaku K. K. Japanese Patent No. 113.952.

Wetting Agents

Wetting agents for use in alkaline baths comprise (a) an alkali-resistant product derived from a non - oxidizing oxygen - containing mineral acid and an aliphatic hydrocarbon containing 12 · 18 carbon atoms. (b) a terpene alcohol and (c) an agent soluble in both water and terpene alcohols, which therefore promotes the solubility of the terpene alcohol. An example of (a) is the sulfuric or phosphoric acid derivative of aliphatic alcohols: of (b) pine oil; of (c) butyl alcohol, cyclohexyl alcohol, ethylene glycol, etc. Soc. pour l'ind. chim. a Bale. British Patent No. 442.047.

To Keep Soap CLEAN



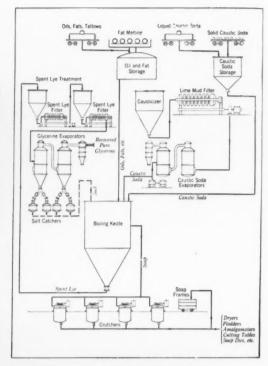
(Right) Flow chart for typical Soap Manufacturing Plant, also showing salt and glycerine recovery and causticizing plant.

BOILING KETTLES

(Above) High grade toilet toaps are made in this 16 ft. dia. x 45 ft. deep Nickel-Clad Steel boiling kettle built b Littleford Bros.. Cincinnati, O.

(Right) View showing conical bottom of a 15 ft. dia. x 29 ft. bigh soap boiling kettle built entirely from ½ in., ¼ in., and ¼ in. thick Nickel-Clad Steel. Heating coils and discharge spouts are solid Nickel.

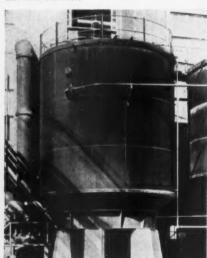




CAUSTICIZING EQUIPMENT

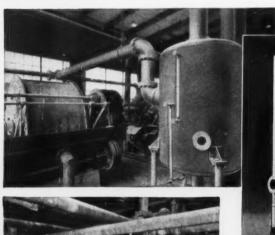
(Right) Part of a battery of six Swenson Continuous Rotary Vacuum Lime Mud Filters equipped with Monel Metal facing cloth.

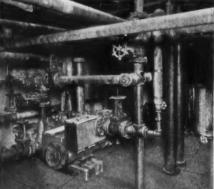
(Extreme right) Zaremba Vertical Caustic Soda Evaporator built with Nickel-Clad Steel shell with Pure Nickel tube sheets and tubes.

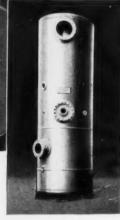


CAUSTIC SODA STORAGE

Nickel-Clad Steel Caustic Soda Settling Tank. Conical bottom is ½ in., next 5 ft. is ½ in., top of shell is ¼ in. -10% Nickel-Clad Steel. Tank is 18 ft. dia, x 25 ft. bigb. Nickel side welded with No. 35 Nickel Vertical Metallic Arc Welding Wire. Job done by Chicago Bridge & Iron Works, Birmingham, Ala.







PIPE LINES, VALVES AND

(Left) Monel Metal and Pure Nickel globe and gate valves, futings, and piping are widely used on caustic soda and soap stock lines.

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

Control Corrosion as well as Contamination

COAP makers know that to hold markets against today's keen competition, soap must be "as pure as it can be made." Which means eliminating the greatest single cause of rancidity and off colors . . . metallic contamination. And that certainly means using in your processing equipment the metals which have proved their unequalled high resistance to corrosion from caustics, brines, fatty acids, aromatic and antiseptic ingredients. Those metals are Nickel and its alloys.

Nickel and Monel Metal have another big advantage, too; they outlive other metals, and cut maintenance

On the preceding page you find a typical flow chart for the soap plant. Consult the table below to find which of the Nickel materials has proved best adapted to each part of the equipment:

USES OF NICKEL AND NICKEL ALLOYS IN EQUIPMENT FOR SOAP MANUFACTURING

Caustic Handling

TANK CARS—Nickel-Clad Steel construction STORAGE TANKS—Nickel-Clad Steel CAUSTICIZER—Nickel-Clad Steel LIME MUD FILTERS—Monel Metal Wire Cloth EVAPORATORS

Bodies-Nickel-Clad Steel Tubes and Tube Sheets-Pure Nickel or Monel Metal

Monel Metal

Coils-Pure Nickel or Monel Metal

Catchalls – Nickel-Clad Steel or lined with Nickel sheet

HEAT EXCHANGERS-Pure Nickel or Monel Metal PUMPS

Bodies-Pure Nickel or Monel Metal Impellers-Pure Nickel or Monel Metal Rods & Shafts-Pure Nickel or Monel Metal VALVES & FITTINGS-Pure Nickel or Monel

PIPE LINES-Pure Nickel or Monel Metal

Fats and Oils

PIPE LINES-Monel Metal or Pure Nickel VALVES & FITTINGS-Monel Metal or Pure Nickel

Bodies-Monel Metal or Pure Nickel Impellers-Pure Nickel or Monel Metal Rods & Shafts-Monel Metal or Pure Nickel

Spent Lye

FILTERS-Monel Metal wire cloth PIPING-Monel Metal

Rods & Shafts-Monel Metal Sleeves, Impellers, etc.-Monel Metal

Glycerine Evaporation and Salt Recovery

EVAPORATORS

Bodies-Nickel-Clad Steel Tube and Tube Sheets-Pure Nickel or Monel Metal

Downtakes-Nickel-Clad Steel, Monel Metal or Salt Catchers-Nickel-Clad Steel Nutch Filters-Nickel-Clad Steel

Perforated Nutch Filter Screens-Monel Metal Soap Boiling

BOILING KETTLES

Kettle Body-Nickel-Clad Steel or Monel Metal linings for upper courses Heating Coils-Pure Nickel or Monel Metal Covers-Nickel-Clad Steel Suction Pipes-Pure Nickel or Monel Metal Suction Pipe Cables-Monel Metal Valves & Fittings-Pure Nickel or Monel Metal Supply Lines-Monel Metal or Pure Nickel

Soap Treatment

CRUTCHERS

Crutcher Body - Nickel-Clad Steel or Monel Metal Agitator Shaft and Agitator - Pure Nickel or Monel Metal

Heating & Cooling Coils-Pure Nickel or Monel Metal Valves & Fittings-Pure Nickel or Monel Metal

AMALGAMATORS

Shells-Nickel-Clad Steel or Monel Metal Shaft & Agitator-Monel Metal

PIPE LINES-Pure Nickel or Monel Metal

PLODDERS

Hoppers-Monel Metal linings or Nickel-Clad Steel Cylinder-Monel Metal Linings or Nickel-Clad Steel

Screws, Screens, Forming Plates and Cutting Knives-Monel Metal

CUTTERS

Cutter Table – Monel Metal covered, Monel Metal-Plywood Cutting Wires or Knives–Monel Metal

DIES-Monel Metal

MISCELLANEOUS

Pails-Monel Metal, standard fabrication Dippers, Measures, Filter Screens-Monel Metal

Write today for these bulletins, written to help solve your problems:

"Nickel and Monel Metal in the Manu-

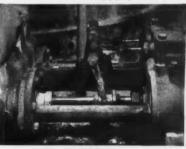
facture of Soap "Caustic Alkalies vs. Nickel and Its

Alloys Monel Metal in Pumps"



MIXING TANKS

Shaving soap mixing tanks, fabricated by Theodore Walter, Newark, N. J. The two top tanks are lined with Pure Nickel; the two bottom tanks are Lukens Nickel-Clad Steel. Connecting piping is Pure Nickel.



PUMPS

Reciprocating pump, size 4 in. x 8 in. x 4 in. ban-dling bot fatty acid at plant of M. Werk Co., Cincin-nati, O. Photo shows present condition of Monel Metal pump rods after 3 years' continuous service. The cyl-inders on the pumping end are Monel Metal, too.

GLYCERINE AND SALT RECOVERY

(Below) To resist corrosion by salt and caustic soda in the evaporation of glycerine from spent lye. Nickel and Nickel-Clad Steel is used for the evaporator and salt catchers of this recently built Swenton unit.





Monel Metal is a registered trade-mark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.

No Chemical Plant Is Complete

Without a Compact Technical Library

And No Such Library Is Complete Without These Well-Known

TECHNICAL BOOKS

Perfumes, Cosmetics and Soaps, by Poucher. New and revised edition of this standard reference. Volume I, a dictionary of raw materials, 394 pages, \$6.50. Volume II, dealing with the manufacture of soaps, perfumes and toilet preparations, 406 pages, \$9.00.

Modern Cosmetics, by Chilson. 400 pages of practical, usable information for the manufacturer of cosmetics. Formulas and manufacturing instructions for everything in the cosmetic line, \$6.00.

The American Soap Maker's Guide, by Meerbott and Stanislaus. The most recent American publication on soap manufacturing. 750 pages. \$7.50.

Henley's Twentieth Century Book of Recipes, Formulas and Processes. A handy reference book listing 10,000 miscellaneous formulas, including special sections for soaps, polishes, insecticides, etc. 800 pages. \$4.00.

The Industrial Chemistry of Fats and Waxes, by Hilditch. A study of the fats and waxes in relation to their use in industry. 450 pages. \$7.50.

Hydrogenation of Organic Substances, by Ellis. Latest revised edition of this well-known **book,** pre-eminent in the field of hydrogenation. 990 pages. \$15.00.

Modern Soap and Detergent Industry, by Martin. Second Edition An outstanding contribution to the literature on soap manufacture. Thoroughly up to date work covering processes, apparatus and formulas. In two volumes—cloth binding, 6½ x 10½. Price \$14.00 for each volume.

Modern Soap Perfumes, by Sedgwick. A practical handbook on the science of soap perfumery. \$1,00.

Laundry Chemistry, by A. Harvey. A manual on the chemistry of laundry materials and methods. 120 pages, 5 x 7½. \$1.75.

Pyrethrum Flowers, by Gnadinger. A complete compilation of all known facts on pyrethrum; its history, sources, evaluation, chemistry and uses. The problems involved in the manufacture of pyrethrum products are given thorough and lucid exposition. 270 pages. \$5.00

Soaps and Proteins, Their Colloid Chemistry in Theory and Practice, by Fischer. 272 pages. \$4.00

"Soap". Bound volumes for years 1927-28 and 1935 available at \$12.00 each.

Soaps, by Hurst. A practical manual of soap manufacture. 440 pages. \$8.50.

Soap Blue Book, A Buyer's Guide, Catalog and Business and Technical Reference Book. 195 pages. \$1.00.

Spray Process for Soap Powders, by Thomas. Full discussion of latest manufacturing processes. 72 pages, in German. \$1.50.

Vegetable Fats and Oils, by George S. Jamieson. 444 pages. An American Chemical Society Monograph. Covering classification, occurrence, properties, analytical methods, etc., of vegetable oils, fatty acid and other derivatives; also production and refining methods. \$6.50.

Chemistry of Laundry Materials, by D. N. Jackman. A new book for the laundry operator, containing valuable information on the chemistry of laundry materials. Discusses alkalies, soaps, bleaches, starches, also the newer detergents, synthetic soaps, etc. 230 pages \$2.50.

The Chemical Formulary, by H. Bennett. This latest edition carries 5,000 formulae all said to be different from those appearing in the first and second editions. 5½ x 8½. 550 pages. Price, \$6.00.

Owing to the large number of books supplied it is impossible to open accounts on individual book orders or to supply books on approval. Please send check with order.

MAC NAIR-DORLAND CO.

254 West 31st Street

NEW YORK CITY

Liquid Shaving Soap

The following are given as suitable formulas for liquid shaving soaps:

On cooling the compound which precipitated out had the composition $C_{18}H_{35}O_2Na$, $C_{18}H_{36}O_2$. No other compound could be found. Its mole-

	Emul	sions	Clear	Solut	ions
Stearin	10	9	-	_	-
Tallow		9	_	20.8	8.5
Olein	_	-	13.5	_	12.8
Coconut oil	10	3	1.6	8.3	8.8
Caustic potash, 50° Bé	9.4	9	6.3	12.8	12.7
Potassium carbonate	-	0.1	-	2.8	3
Water	57.8	36.9	78.6	10.8	11.9
Glycerine	10	12		24.3	21.3
Alcohol	2.8	21	-	20.8	21.3

The emulsified products may be superfatted with 1.5 per cent of a mixture of equal parts of cymene and vaseline. Karl Paff. Riechstoff-industrie 11, 111 (1936).

Hardened Olive Oil

A firm in Barcelona, Spain, produces a fat from olive oil in different degrees of hardness, with melting points of about 40°, 50° and 60° C. The lowest melting fat is said to be ideal for the production of special olive oil fine soaps, the middle grade can be used to replace stearin in some cases, for example, in shaving soaps. The fully hardened fat finds application as a wax substitute in the cosmetic industry. *Manufacturing Chemist* 7, 202 (1936).

Hydrocarbons in Olive Oil

Crude olive oil is purified by various means, including deodorization by treatment with superheated steam. The products removed with steam have been found to consist of a number of hydrocarbons varying from $C_{13}H_{24}$ to $C_{26}H_{54}$, some liquid and some solid, some saturated and some unsaturated. All of these hydrocarbons are present in the crude olive oil only in traces (0.07 gram per kilogram), which explains why their presence has never been noticed before. H. Marcelet. Les Matieres Grasses 28, 10864-5 (1936).

Fat-Soap Systems

Reactions between the systems stearic acid-sodium oleate and oleic acid-sodium stearate were studied in media of absolute and dilute ethyl alcohol, methyl alcohol and a mixture of methyl alcohol and benzene. cular weight was about 590-613. Jiro Mikumo. J. Soc. Chem. Ind., Japan 39, Suppl. binding 98-100 (1936).

......

Chlorocresol Soap

In order to evaluate a chlorocresol soap solution, it is necessary to separate the chlorocresol from the soap by distillation with superheated steam, isolate the chlorocresol from the distillate by perforation with ether and finally estimate the chlorocresol by catalytic hydrogenation. B. Stempel. *Pharm. Zentralhalle* 77, 329-30 (1936).

Hydrogenation

Oils from different species of dolphins, seals, whales and sharks may be hydrogenated successfully by treatment with 3 per cent of nickel carbonate precipitated on kieselguhr, and hydrogen at 130° C. for 30 minutes, followed by treatment with a nickel formate catalyst. E. Etinburg and L. Nikolaeva. Masloboino Zhirovoe Delo 12, 212-4 (1936).

Bromonaphthalene Method

The advantage of the bromonaphthalene method for refractometric fat determination in oil seeds, over the gravimetric method is in the saving of time, space and material, without the exactness of the method being essentially less. Bromonaphthalene is a less volatile solvent than chloronaphthalene. Parallel determinations by the refractometric method gave results which checked to ±0.1-0.2 units of the fat percentage. Gravimetric values run 0.1-0.3 per cent higher than the refractometric. Wolfgang Leithe. Z. Untersuch. Lebensm. 71, 33.8 (1936).

Hand Soap

A satisfactory hard mechanics' hand soap contained fatty and other organic acids, 35 parts; soda ash, 1, sodium sulfite 3-4, free alkali 0.1, mineral filler ground to pass 1650 mesh per square cm., 24, and water 30-2 parts by weight. The oil used in making the soap consisted of 65-75 parts of a fat mixture, 15 parts of naphthenic salts, and 10-20 parts of acidol. S. Engle. Masloboino Zhirovoe Delo 12, 201-2 (1936).

Soap Structure

All solid soaps display a crystal structure. It is suggested that a study of the photomicrographs of soaps is a line of research that might lead to establishing criteria for the control of soap manufacturing methods, so as to improve the physical qualities of soap. B. Tyutyunnikox and N. Kas'yanova. Allgem. Oel- und Fett-Ztg. 33, 204-16 (1936).

Time in Iodine Number

That the determination of iodine number is purely empirical is well known. Using Wijs' solution, the change of iodine number with time, other conditions being standardized, is reported as follows:

Minutes at 60° C. Iodine Number in the dark

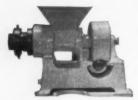
25									5.1
30									6.1
40									6.1
50							*		6.9
60									7.7
70									9.0

Seifen- Ol- und Fett-Industrie 22, 126-8 (1936).

The difference between the refractive indices of solvent and vegetable oils is greater with bromonaphthalene than with benzene. For this reason the former is preferred in determining the refractive index of vegetable oils. W. Leithe. Z. Unters. Lebensm. 71, 33 (1936).

The oxidation of fats and oils by micro-organisms gives peroxides, oxy acids and aldehydes. It is analogous to the action of light and oxygen. L. M. Horovitz-Vlasova and M. J. Livschitz. Zentr. Bakt. Parasitenk., 11 Abt., 92, 424-35.

IOUCHIN MACHINERY CO. HAWTHORNE, N. J.



21/2" Laboratory Plodder No. 90B 11/2 outlet. Good for cakes up 1/2" x 11/8" 1/3 H.P.

PLODDERS≈

With our No. 90 combination Plodder sample soaps can be made without milling the soap. The cakes will be compressed equal to the larger machines. This machine is also equipped with our new electric heater and forming plate holder.



No. 90 Plodder Made in two sizes 4" and 6" $2^3/4$ " outlet. Good for cakes up to 4 oz. 1" x 2" x 3". MILLESS METHOD

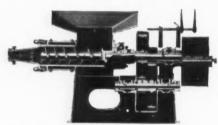


No. 92B Combination Plodders made in two sizes 8" and 10" MILLESS METHOD

PLODDERS PRODUCE RIBBONS SAME AS MILLS



Forming Plate Holder made to fit all plodders.

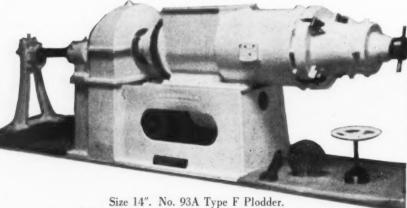


Extra Heavy Type F Plodder No. 93 made in two sizes 83/4" and 12".



No. 92 Standard Finishing Plodder made in two sizes 8" and 10" gear drive.





in our Plodders are bronze lined. The Bearing back of the screen has oil sealed ring to prevent oil from getting in the soap.

Bearings

3000 lbs. per hour.

Largest Plodder ever made.

New Equipment

F YOU want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., write to the MacNair-Dorland Co., Inc., 254 West 31st St., New York, mentioning the number of the item.

260-Label Paster

Scientific Filter Co., New York, has recently introduced a new type label paster which will handle all types of paper labels, light card-board and some types of cloth. It is designed to operate successfully on light bodied glues, and this feature, together with the addition of a special scraper knife, is said to cut glue consumption to a minimum. The entire machine can be dismantled quickly for cleaning. It is equipped with a geared motor drive.

261—Precision Scale

Exact Weight Scale Co., Columbus. Ohio, has just introduced a new weighing device built on the over and underweight scale principle. They are the originators of weighing equipment of this type which is used in the soap industry in batch mixing and color control. In the new "Shadowgraph" working parts are said to be reduced 30 per cent by the elimination of ordinary tower mechanism. The machine is described as noiseless in operation and capable of functioning in a dust laden atmosphere. It is said to function perfectly no matter how rough or uneven is the bench on which it is placed.

262-CO. Meters

Republic Flow Meters Co., Chicago, has just completed a redesign of its CO_2 meter, for use in checking the CO_2 content of flue gas. A booklet, just issued, describes the new meter and illustrates the economies that can be effected by cutting down the CO_2 content of flue gas by systematic control. Copies available through SOAP.

268-Molded Bakelite

Bakelite Corp., New York, has just released the 7th edition of a 48-page booklet discussing the characteristics and properties of "Bakelite" and illustrating the many applications of this material in various fields of industry. Molding equipment and mold designs are described as well. Copies available.

Publications

265-Pyrethrum Booklet

S. B. Penick & Co., New York, has issued a 32-page booklet dealing with the subject of pyrethrum flowers and its particular extract sold under the trade name "Pyrefume". The origin, sources, characteristics and tests for pyrethrum are discussed briefly, with special emphasis being placed on the characteristics of "Pyrefume". Other sections of the booklet deal with livestock sprays, pyrethrum dusts, plant sprays, etc. Copies are available through S. B. Penick & Co. or by addressing the publishers of SOAP.

266—Raw Materials

E. M. Sergeant Pulp & Chemical Co., New York, has issued a folder listing the various chemicals, animal and vegetable oils it supplies. Copies available.

269—Sprayer Catalog

Dobbins Manufacturing Co.. North St. Paul, Minn.. has just issued a 40-page illustrated catalog showing the many types of sprayers, dusters, pumps, spraying accessories, etc.. which the company offers for various industrial and farm uses. Copies will be sent on request.

270—Price List

Riviera Products Co., Chicago. has just issued a new catalog and price list covering quotations on its line of essential oils, perfuming materials, colors, chemicals, etc. Copies available.

267-Silicates in Soap

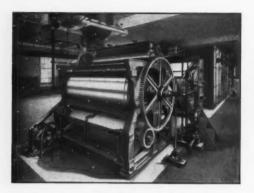
Philadelphia Quartz Co., Philadelphia, has recently reissued No. 1 in its bulletin series describing the use of silicates of soda in soap making. The bulletin describes what silicates are, reasons for their use in soap making, effect on the soap, application of prepared silicates, and gives instructions on the use of the various silicates in cold-made, boiled and semi-boiled soaps. Copies are available to readers of SOAP.

Use for Wetting Agents

Reactions involving two immiscible phases in which one is an aqueous phase, may be greatly accelerated by the use of a suitable wetting agent. For example, to a solution of arsenic acid containing caustic soda solution, was added a small amount of sodium lauryl sulfate, and then phenyl nitrite. After refluxing for 6 hours, the mixture was extracted with benzene and the solvent and excess phenyl nitrite removed by steam distillation of the extract, leaving 75 per cent of PhN:N (:O) Ph. J. Colonge. Bull. soc. chim. (5), **3,** 501-3 (1936).

Sova Bean Oil Types

The oil of the Laredo variety of soybean seed usually has a higher refractive index and iodine number than that of the other varieties. The oil of immature soybeans has a slightly higher refractive index and a considerably lower iodine number than the oil of mature beans. The saponification number shows no distinct trend. Decomposition of the beans is accompanied by a considerable increase in the percentages of fat and protein. The refractive index of the oil increases slightly and the iodine number considerably, but the saponification number again shows no distinct trend. J. F. O'Kelly and M. Gieger. Assoc. Southern Agr. Workers, Proc. 34th, 35th and 36th Ann. Conventions. 460.



♠ New Type Proctor Chip Soap System producing extremely thin chips of textile soap in new plant of Original Bradford Soap Co., River Point, R. 1.

The New Proctor Chip Soap System produces the thinnest of chips . . . chips perfectly formed in long ribbons, evenly thin from edge to edge, uniformly dried free from hard overdried particles or underdried spots. These chips make cleaner, whiter, quicker-dissolving laundry flakes. They make smooth-surfaced, clear-colored toilet cakes. They give quicker, better milling and plodding. They give quicker, easier grinding into powdered soaps . . . with less loss in dust. New high speed chilling roll . . . spray-cooled, pump-drained, precision-ground, smooth-surfaced. New drying machine . . . with revolutionary improvements in principal details of design . . . more efficient, more economical, cleaner in operation. Write for your copy of our new descriptive Bulletin No. 72.

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TRADE REVIEW

New Patents

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Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,046,449, Spray Dried Soap, Patented July 7, 1936, by Carleton Ellis, Montclair, N. J., assignor to The Procter & Gamble Company, Cincinnati, Ohio. The process for making comminuted soap which comprises preparing a soap composition consisting of middle soap together with a degumming agent in sufficient proportion to reduce the viscosity to a sprayable condition but not sufficient to cause a separation of crystalline material from the soap, spraying the same into a chamber heated by a current of heated gas, and collecting the dried soap as finely divided material composed largely of hollow glass - like, wall - vesiculated, substantially non-puffed particles.

No. 2.046,961, Insecticide, Patented July 7, 1936, by Lindley E. Mills, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich. A composition of matter suitable for use as a plant and tree spray comprising a petroleum fraction having a sulphonation value above 50, trichlorobenzene, an emulsifying agent, and water.

No. 2,047,320. Soap Cream, Patented July 14, 1936, by Ralph H. Ferguson, Cincinnati, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio. A soap cream having a creamy consistency throughout the range of temperatures from 40°F. to 100°F. which when examined under a microscope at any temperature in this range is found to comprise crystals of soap in a mother liquor, the soap cream characterized in that

of the real soap content thereof more than half thereof is made from oils suitable for soap making other than those of the coconut class, hydrogenated to an iodine value of not over 10.

No. 2,047,323, Drying and Disinfecting Powder, Patented July 14, 1936, by Arthur J. Hettel, Rochester, N. Y. A drying and disinfecting powder composed of trioxymethylene, ammonium alum, and magnesium sulphate ground and mixed in suitable proportions with suitable setting, hardening, and moisture absorbing elements.

No. 2,048,303, Polish, Patented July 21, 1936, by Milton D. Swartz, Baltimore, Md. The process of making a polish comprising forming an aqueous mixture of a non-sticky and non-greasy wax, soap, a secondary emulsifying agent, and an agent adapted to lower the surface tension of the aqueous solution, heating the mixture, treating the mixture to form a stable emulsion containing finely divided wax permanently dispersed therein, and incorporating therein a resin component having a volatile radical incapable of breaking down the wax emulsion and drying to a glossy finish.

No. 2,048,797, Soap, Patented July 28, 1936, by Paul Kuller, Berlin-Friedenau, Germany. The process which comprises decomposing raw silk with an alkali and mixing the product with soap.

No. 2,049,055, Preparing Improved Soaps, Patented July 28, 1936, by Stewart C. Fulton and Hans G. Vesterdal, Elizabeth, N. J., assignors to Standard Oil Development Company. Process for preparing an improved soap comprising treating an olefin of more than about 7 carbon atoms with fuming sulfuric acid at a reaction temperature below 40°F., reducing the acid strength to below about 60 per cent while maintaining the mixture below about 40°F., removing the free acid from the reaction mixture, adding an excess of aqueous alkali, heating the alkaline mixture to hydrolyze unstable bodies therein, then separating therefrom a stable soap.

Light Effect on Bean Oil

Soybean oil showed rapid formation of ketones by light of wave length less than 410 millicrons, much more rapid than the methyl ester of lauric acid, on which only light of wave length under 330 millicrons was essentially effective. The decrease in effectiveness in the region of longer wave lengths is more gradual with soybean oil than with the lauric acid ester. Hard and soft X-rays as well as short electromagnetic waves do not cause ketone formation in soybean oil. A faint yellow filter protects the oil from damage by visible light. H. Schmalfuss, H. Werner, A. Gehrke and R. Minkowski. Margarine-Ind. 27, 93-5.

Rubber Soap Wrapper

A very thin coating of rubber has been developed by J. P. Kane of New York City (U. S. Patent No. 2.042,104) for use as soap wrappers. Used in place of the conventional paper wrappers, the sheer rubber coating is claimed to keep the soap water-proof and weather-proof. To unwrap the cake of soap, the rubber coating is simply stripped off by pulling at a tab on the side. The rubber wrappers can be colored any desired bue.

According to the inventor, many attempts have been made to turn out rubber-wrapped cakes of soap commercially but with no success. The rubber coating would not stick to the cake properly. Cakes of soap so coated would stick together and the rubber would bleed into the soap and discolor it. It is claimed that these defects have been overcome.

The cakes of soap are sprayed with or dipped into an aqueous solution containing rubber, sulfur, zinc oxide and an ultra-rapid accelerator. Coated with this solution, cakes go into a drying chamber and then into a vulcanizing chamber. Because of the ultra-rapid accelerator, vulcanization takes place quickly and at low temperatures so that the cake of soap is unaffected. In this way an adherent rubber coating is formed over the cake of soap which fits its contours so snugly that trade-marks and designs impressed in the soap appear very clearly and present an attractive package. The coating is permeable to the perfume of the soap.

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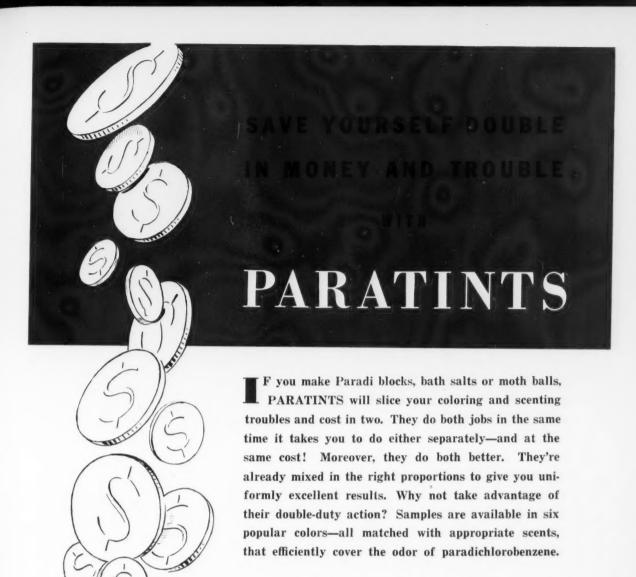
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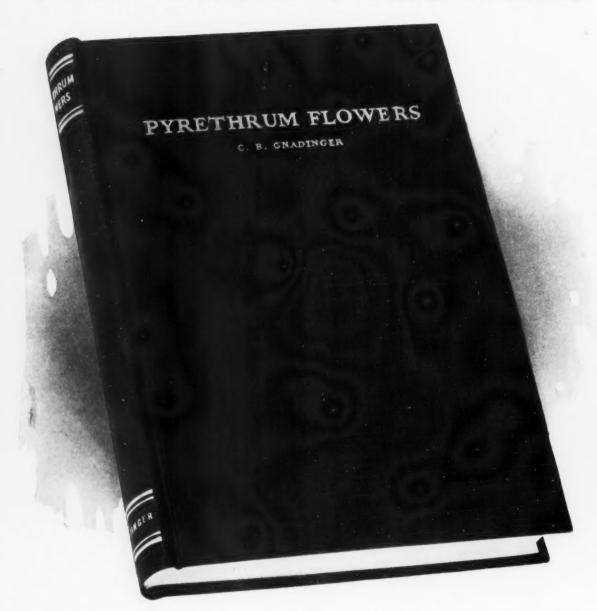


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TABLE OF CONTENTS

Description and History of Pyrethrum. 1 Definition. Botanical description. Other species. Early use in Persia and Europe. Introduction into United States. Trade

Chapter II

Commercial Sources of Pyrethrum...5
Dalmatian pyrethrum; cultivating, harvesting, marketing, crop statistics. Japanese pyrethrum; cultivating, harvesting, marketing, production statistics. Consumption of pyrethrum in United States. Other sources.

Chapter III

Active Principles of Pyretbrum....21
Early investigations. Work of Staudinger and Ruzicka. Active principles of Japanese pyrethrum. Isolation of pyrethrins by physical means. Action of pyrethrins on cold-blooded animals. Effect of pyrethrins on warm-blooded animals.

Chapter IV

Chapter V

Chapter VI

Chapter VII

Chapter VIII

cold storage on pyrethrum. Relation be-tween maturity of flowers and decompo-sition in storage. Effect of baling on loss of pyrethrins during storage. Experiments with isolated pyrethrins. Effect of anti-oxidants on concentrated pyrethrum ex-tracts. Effect of storage on pyrethrum household sprays. Summary.

Chapter IX

Adulteration of Pyretbrum.....135
Types of adulteration. Former methods of detecting adulteration. Labelling pyrethrum. Simulation of high pyrethrin content.

Chapter X

Powdered and Ground Pyrethrum. 141 Production of fine powder. Grinding for percolation.

Chapter XI

Manufacture of Pyretbrum Extracts. 146 Selecting the flowers—standardization.
Direct extraction process. Manufacture of concentrated pyrethrum extracts. Effect of storage on concentrated extracts. Oleoresin of pyrethrum.

Chapter XII

Pyrethrum Household Insecticides, 159 Pyrethrum/Household Insecticides. 159
Correct pyrethrin content for household
insecticides. Proper oil base. The steam
sprayer. Perfume materials and other
chemicals. Color of household sprays. Addition of rotenone to household sprays. Addition of rotenone to household sprays.
Chemical methods for assaying pyrethrum-oil sprays. Notes on the analysis of
pyrethrum extracts. Substitutes for pyrethrum. Labelling household insecticides.

Chapter XIII

Pyretbrum Live Stock Sprays.... 180 Specifications. Physiological effect of sprays on stock—type of oil. Repellent action. Killing power. Labelling live stock

Chapter XV

Miscellaneous Uses of Pyrethrum...212 Mosquito control. Ant control. Pyrethrum smudges. Pyrethrum for internal parasmudges. Py sites. Minor

Chapter XVI

Chapter XVI

Possible Sources of Pyretbrum
Flowers in the United States....217

Pyrethrum investigations in Colorado.
Effect of different drying methods on pyrethrin content. Effect of shading the plant on pyrethrin content. Effect of different treatments previous to drying flowers. Variation in P. cinerariaefolium. Non-variable botanical characters. Variable botanical characters. Variable botanical characters. Variation in yield of flowers and pyrethrins. Winter hardiness of pyrethrum. Foreign and domestic strains of pyrethrum. Test plots under varied conditions. Effect of irrigation on plant losses. Effect of spacing interval on yield of flowers. Other experimental plantings. Instructions for growing pyrethrum. Attemps at threshing pyrethrum.

REFERENCES. 231

REFERENCES......231 INDEX.....266

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oil sprays Notes on analysis of pyrethrum extracts

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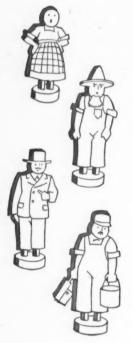
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HE Standard Control Insecticide, authorized for distribution by the National Association of Insecticide & Disinfectant Manufacturers, is now ready for those firms in the insecticide industry who desire samples of this standard product against which to check their own materials. The standard insecticide, in single bottles or in cases of a dozen bottles, can be purchased direct from the Association office by anybody who wants it. It has been packed from the same lot of insecticide under standard conditions. It offers a common basis for comparison of the tests of different laboratories, and a basis on which to check commercial products, one against the other or against a specification product. It represents a common yard-stick for all insecticide manufacturers who want such a device. Every firm or laboratory which desires truly comparable results in its insecticide testing should put in a stock of this control standard. Then, published figures, plus or minus, as compared with this standard will really mean something.



DISINFECTANT manufacturer of highest repute was cited and fined recently for violation of the U. S. Caustic Poison Act inasmuch as one of his disinfectants contained over five per cent of phenol and was not labelled "poison." That the violation was accidental, and altogether unintentional, is quite generally known. The trouble lay in the coal-tar oil used in the disinfectant. It probably ran high in phenol and, although the disinfectant maker in question has one of the finest equipped chemical laboratories in the country, that particular batch of oil was evidently not tested for phenol. That

the same thing may inadvertently happen to other disinfectant manufacturers, is likely. Oils should be tested to avoid a duplication of this mistake. Also the suppliers of coal-tar oils, knowing the use to which they are to be put, should take greater pains in checking prior to shipment. The circumstances surrounding a violation of this kind may be misunderstood by disinfectant consumers and the public generally.



RATHER harsh indictment of a certain class of insecticide manufacturers is contained in a letter published elsewhere in this issue. This letter states in part: "... how can we in the insecticide industry condemn government buyers or private buyers when probably the bulk of those in the industry itself are engaged in the daily pursuit of misinforming buyers, deliberately and intentionally?"

We disagree that the "bulk of those in the industry itself" deliberately misinform buyers. However, we do agree that a very considerable number of firms are anxious to keep all buyers in ignorance of the true facts about insecticides, and mislead them accordingly. That this gives these suppliers a chance to cheat, and keep on cheating, is quite obviously the reason for the practice. If the buyer does not know what he is buying, it is far easier to fool him because he does not recognize a sound or unsound argument one from the other, or a good product from bad.

When buyers learn to beware of the salesmen whose product is made by a secret formula and contains one or more very mysterious ingredients,

(Turn to Page 113)

Insecticide Tests Compared

A Brief Study of Comparative Results Using the Peet-Grady Method and the Campbell Turn-Table Method

By A. Edison Badertscher 1

THE subject of testing household insecticides and controlling their toxic quality has commanded a place of paramount importance in the minds of insecticide manufacturers who have been members of the N.A.I.D.M.² during the last eight year period. As a result of this keen interest, the Association meetings have been quite productive in bringing before its membership very definite information and procedure that may be followed to control the quality of oil type insecticides.

The first definite step taken by the Association towards the setting up of a future standard was at the December meeting in 1931, when by a majority vote the Peet-Grady method was formally presented to the insecticide industry as a possible means to check and control its products. The detailed procedure of this method appeared in "Soap" April 1932. The basic work of this method by Peet and Grady first appeared in the "Journal of Economic Entomology" Vol. 21 No. 4, August, 1928. The N.A.I.D.M. members have since 1931 spent much time and money in an effort to improve this method: first, to simplify the procedure; and second, to reduce the variations between individual tests to a minimum.

This subject of properly evaluating household insecticides has also been given much study by several members of the Bureau of Entomology and Plant Quarantine, U. S. D. A. As a result of this study Dr. F. L. Campbell has presented an entirely new type of method that may be used for testing oil-type sprays. This method is known to the industry as the Campbell "Turn-Table" method. A detailed discussion of this method was first presented to the industry in the form of a leaflet "ET-11" April 1934, "A Rapid Laboratory Method For Testing Kerosene-Base Insecticides Against House Flies" by F. L. Campbell and W. N. Sullivan, Division of Insect Physiology and Toxicology, Bureau of Entomology, U. S. Department of Agriculture. A more recent detailed discussion of this method appeared in "SOAP". September 1935. "Cracca,-A Source of Insecticides", by Howard A. Jones, F. L. Campbell, and W. N. Sullivan, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture.

McCormick & Co., Inc., was probably one of the first of the household spray manufacturers to construct and put into operation a "Turn-Table" in their insecticide laboratory. This "Turn-Table" was displayed in the meeting rooms of the N.A.I.D.M. in New York, December, 1934. A picture of this "Turn-Table" appeared in "SOAP", January, 1935.

During the last six months of 1935 a large number of preliminary tests were conducted in an effort to establish the relativity between the standard "Peet-Grady" method and the Campbell "Turn-Table" method. Four series of tests are presented herewith. In all cases the same number of tests were made with each sample by both methods on the same lot of flies. The flies were chilled, counted into lots of 100, placed in petri dishes, and kept in a room for two hours where the temperature was approximately 85° F., before the tests were started for both methods. This was done to bring to a minimum the normal experimental error between the two methods.

Series 1 consisted of five samples. The comparative figures are the summaries of fifty individual tests, respectively. During this series of tests the average relative humidity was 50 per cent. The temperature varied from 84 to 88° F.

The five samples consisted of the following compositions:

Sample No. 1—A solution of 90 per cent Deo-Base and 10 per cent Oil of Sassafras carrying 100 mlgms. rotenone per hundred cc.

Sample No. 2—Deo-Base carrying 50 mlgms, pyrethrins per hundred cc.

Sample No. 3—Deo-Base carrying 75 mlgms. pyrethrins per hundred cc.

Sample No. 4—Deo-Base carrying 100 mlgms. pyrethrins per hundred cc.

Sample No. 5—A 4 per cent solution of Lethane 384 in Deo-Base.

	Me	thod Used-	"Peet-Grae	dy"	
Sample No.	No. of tests	Total number of insects	% down	% dead 24 hours	% dead
1	50	4,785	94	64	91
2	50	4,770	96	58	60
3	50	4,818	98	65	68
4	50	4,771	98	73	74
5	50	4,751	99	72	84
	Method	Used-Camp	bell "Turi	-Table"	
1	50	4,859	88	59	89
2	50	4,825	87	30	44
3	50	4,840	91	34	47
4	50	4,811	94	40	54
5	50	4,831	100	50	66

In series No. 2 four commercial insecticides were used compared with a standard solution of benzophenone.

¹ Contribution by the Insecticide Laboratories of McCormick & Co., Inc., Baltimore, Md., A. Edison Badertscher, Chief Entomologist.

² National Association of Insecticide and Disinfectant Manufacturers.

View of the Campbell Turn-Table Method in operation. A greater number of tests per day are possible with the Compbell Method. Another advantage is held to be its application to aqueous sprays and dusts.



The following figures are summaries of ten individual tests, respectively. The average relative humidity during this series was 60 per cent. The temperature varied from 82 to 85° F.

The five samples consisted of the following compositions:

Sample No. 1-A commercial product alleged to consist of a solution where a 20 to 1 extract, carrying 2.0 grams pyrethrins per hundred cc. was diluted at the rate of one plus twelve with a highly refined oil.

Sample No. 2-A commercial sample which consists of a solution made with an extract of pyrethrum containing 2.0 grams pyrethrins per hundred cc. diluted at the rate of one plus thirteen with Deo-Base.

Sample No. 3-A standard solution of benzophenone 5 grams per hundred cc. in a petroleum distillate.

Samples Nos. 4 and 5-are commercial samples of spray which are alleged to consist of a combination of pyrethrum extract and derris resins.

Method Used-"Peet-Grady"

Sample	No. of	Total number	% down	dead	% dead
No.	tests	of insects	10 minutes	24 Lours	48 hours
1	10	983	99	88	92
2	10	992	99	85	92
3	10	1,078	98	90	92
4	10	973	95	73	80
5	10	979	96	79	93

Mothed Used Comphell "Turn Table"

	Method	Used—Camp	ben Tur	n-Table	
1	10	990	90	60	77
2	10	991	94	47	64
3	10	992	88	38	62
4	10	990	87	69	91
5	10	982	91	63	91

The data presented in Series No. 3 are summaries of fifty individual tests on the three official samples sent to members of the Standardization Committee of the N.A.I. D.M. by the Chairman during the latter part of 1935. An extra sample was inserted in the Campbell "Turn-Table" portion of the series, consisting of a solution of 100 mlgms. of rotenone per 100 cc. in acetone.

Sample No. 1-A petroleum distillate carrying 50 mlgms. of pyrethrins per 100 cc.

Sample No. 2-A petroleum distillate carrying 100 mlgms. of pyrethrins per 100 cc.

Sample No. 3-A petroleum distillate carrying 5 per cent bensophenone.

Method Used-"Peet-Grady	99

	149.6	CHICK CHECK	r ccc cui a	44.4	
Sample No.	No. of tests	Alive before treating	G down 10 minutes	% dead 24 hours	% dead
1	50	4,908	81	56	65
2	50	4,891	95	75	83
3	50	4,839	96	76	81
	Method	Used-Cam	pbell "Tur	n-Table"	
1	50	4.943	73	17	28
2	50	4,953	80	29	44
3	50	4,951	80	24	36
4	50	4,945	72	36	90.
		(Turn to I	Page 101)		

AUTO POLISH

By Ralph H. Auch

Chief Chemist, American Products Co.

JUDGING from a survey on the sale of the different types of auto polish, there appears to be two schools among those who polish. The first—shall they be called work-dodgers?—give their cars a lick and a promise, but have to do it often. The second—call them gluttons for punishment— are willing to spend hours in the two distinct operations, cleaning and polishing (or waxing) with two different products. They have the satisfaction of knowing that when the job is finally done, it is done for a long time; that is, for many weeks. Sales of the latter class of auto polishes, however, may be at least in part not to car owners, but to private chauffeurs and others who polish and care for cars for a wage or a livelihood.

The eagerness on the part of manufacturers of polishes to give users a lasting wax polish without the usual labor has resulted in polishes containing both wax and abrasive. On the face of it, this simply does not make sense. How can a polish remove "traffic film" and a dirt and grease accumulation from the finish with abrasives and lay down a uniform wax film on the finish at one and the same time?

Attempting to capitalize the good will that wax polishes enjoy, manufacturers claim "wax" polish with not one iota of wax in their formulation. A glaring case in point is the recommendation of a distributor of 16 cylinder automobiles. The "wax" polish recommended by him upon analysis was found to contain no wax whatever and 10.68 per cent of an ill-suited abrasive. He might well confine his efforts to purveying cars rather than polishes. The recommendations of other car manufacturers are probably equally lacking in technical intelligence

Some oil refiners are good vendors of oil and gasoline but lacking when it comes to manufacturing and marketing auto polishes. A \$415,000,000 oil corporation rushed to the patent office with the following formula, even taking pains to see that over four years elapsed between the application and its issuance so as to enjoy the patent monopoly that much longer. Quoting the patent, "the following composition is a highly satisfactory polish."

Water																			
Mineral S	eal Oil																	19	%
White Oil	(Visco	si	ty	,	7	5	-	S	a;	y	b	o	lt						
at 100°	F.)																. 6	91/2	%
Wilkinite																		1/4	%
Infusorial	Earth																. 0	334	%
Oxalic Aci																			
Tartaric A																			

Now to identify the ingredients on which there may be

some question. The mineral seal oil is the water-white cut between kerosene and straw oil, having a viscosity of about 45 at 100° F. The white oil is probably technical white oil such as is used in milled soap and cosmetic creams. Wilkinite is, of course, bentonite or colloidal clay.

In the first place, the formula leaves something to be desired and in the second place the patent office is usually a poor place to rush to with any mere formula. Nevertheless all manner of auto polishes have been patented but few, if any, of them have been outstanding successes marketwise. Those smart enough to make a commercial success of their creations are usually smart enough to stay away from the patent office and to guard and exploit their formulæ.

Analysis of a number of auto polishes and a study of various published formulæ has resulted in the conviction that there is little or no agreement among manufacturers on what constitutes a good one. In those containing abrasives, and most of them do, infusorial earth is the most widely used with tripoli and bentonite rather common also. Fullers earth, chalk, and air floated silica have also been found.

In an out and out cleaner for infrequent use, the abrasives certainly may be more heroic in its action than where the abrasive is embodied in a polish, which normally is used so much more frequently. Oily liquid types contain straw paraffin oil, technical white oils or mineral seal oil with benzol, kerosene, varnolene and naphtha, menthyl hexalin, methyl or ethyl alcohol, turpentine, amyl acetate and other solvents incorporated to augment the cleaning action.

Wax-type polishes are based usually on carnauba wax. Due to its being so high in cost and more particularly so unwieldy in use, ceresin, ozokerite, paraffin, the synthetic waxes, beeswax, bleached montan and even Japan wax and rosin are sometimes included in the formulation.

Among the most unusual ingredients found upon analysis of commercial products have been sulfonated oil, probably olive, sulfonated naphthenic acid, blown castor oil, ortho-dichlorobenzene and cumar resins. Each possesses some merit too. Sulfonated naphthenic acid is a fair cleaner, probably slightly inferior to the oleates. It has the advantage of being an excellent emulsifier and avoids having to resort to an alkaline medium. The same comments are true generally of the sulfonated oils.

Blown castor oil exerts a mild plasticizing action on the lacquer, retarding oxidation and attendant chalking



of the finish. Its action appears cumulative, however, so it must be sparingly used in the polish. Otherwise damage to the finish may result or at least a tendency to accumulate dust will develop with frequent use.

Orthodichlorobenzene has also been used to some extent in metal polishes, and exerts some cleaning action. It at least imparts a clean and unusual odor to the polish. The use of cumar resins is confined to the wax type polish in organic solvents. It increases the tendency for the polish to "bleed" solvents, but on the other hand improves the lustre of certain formulations.

In the earlier articles on furniture polishes and metal polishes it was possible to develop some semblance of classification, then offer type formulæ and suggestions for modifications. The task of classifying automobile polishes is easy enough, since there are only liquid and paste types. The former usually contains some abrasive, while the latter rarely if ever does. Then there is the powder polish which is primarily an abrasive and whose sale is confined almost exclusively to street vendors. In addition, there is the out and out paste or liquid cleaner designed to clean the surface preparatory to waxing. As to type formulæ, that is another matter.

Several formulæ will be given, but they by no means cover the field.

If one has a good furniture polish formula, the addition of from one to ten per cent of abrasive may work out to be an entirely satisfactory auto polish. The formula given on page 32 of the April, 1936, issue of Soap under 4 Oil and Soap Emulsions is worthy of experiment along the lines of adding abrasives for automobile use.

The simplest polishes are those in which a gum is used as the emulsifying agent. A base that makes a good creamy emulsion is

Gum Tragaca	nth											0.8
Straw Oil												22.0
Infusorial Ear												
Preservative												q. s
Water												77.5
to make	3									-	,	100.0

The gum figure may be adjusted up or down, depending upon its jellying strength and the desired consistency. It may be replaced in whole or in part with karaya gum which must be preserved in either case. The methyl or ethyl ester of para hydroxy benzoic acid or formaldehyde in concentration of one to two-tenths per cent is satisfactory. Organic acids may be incorporated to

facilitate removal of traffic film and dirt accumulations.

Typical of the straight oil polish, formerly a favorite among filling stations and oil companies in particular, is the following:

Paraffin Oi	1												62.0
Linseed Oil													25.0
Chinawood	Oil												6.5
Naptha													3.25
Kerosene													3.25
Odor													q. s.
to ma	ake											-	100.0

This, of course, is strictly a mixture that may be varied to suit. The trick, if any, in formulating this type of polish is to get a dry finish that won't gather dust without too much rubbing.

Typical of the creamy emulsion polish which contains both abrasive and waxes is the following. (The presence of both in one product appears illogical, yet the most widely used abrasive cleaner which runs 28 per cent abrasive contains 2.5 per cent of wax. Likewise abrasive fingernail polish, consisting almost wholly of abrasives, are improved by the addition of a small percentage of powdered carnauba wax, stearic acid or butyl stearate.)

Carnauba	Wax												4.5
Beeswax													2.0
Naphtha													37.0
Tripoli													12.5
Tripoli Stearic Ac	eid .												3.5
Triethanal	omine												1.25
Water													37.25
to r	nake											,	100.00

The stearic acid and triethanalomine are added to the water and heated to the boil to form a soap solution. The waxes are melted in the naphtha by warming and the abrasive is suspended in it and the whole is run into the hot soap solution with agitation. This base formula can be modified to suit by varying the kind of wax as well as the amount used. The tripoli figure may be reduced or replaced in whole or part with a mild abrasive such as infusorial earth or bentonite or a mixture of the two. These are suggestive of the modifications which are almost limitless.

As for the oily emulsion type of polish, the field is too large to attempt to offer type formulae. They consist, of course, soap, oil, solvent, water and abrasive. In addition to the ordinary soap, straight sodium, potassium, ammonium or triethanalomine, oleates and stearates are worthy of trial, since such soap may be made right in the batch. Some abietic acid incorporated with the fatty acid is a convenient method of imparting rosin soap properties. Linseed fatty acids and other fatty acids are commercially available and make it possible to form most any desired soap right in the batch.

In addition to the commonly used oil, blown castor oil in small percentage may be found to impart the lacking, but very necessary, speed or lustre to a given formulation. Small quantities of solvent for nitrocellulose may be found desirable. Many of them, including amyl acetate are soluble in the usual hydrocarbon solvent. Care must be exercised to avoid any softening action on the finish. If kerosene is employed, it may well be the deodorized grade. If any hydrocarbon solvents are incorporated, it is usually well to have a narrow boiling range. A high boiling faction, slow to volatilize may tend to make the oils in the formula smudge or difficult to rub dry.

As for abrasives, those previously mentioned cover those usually employed. At the soft end of the range is asbestine, about the middle is precipitated chalk, and at the hard end titanium dioxide. They are each well worth trying. As in the case of metal polishes, bentonite may be incorporated along with the other more active abrasives to help suspend them. If used, the bentonite should be swelled in some of the water of the formula and decanted from the highly undesirable silica which is almost invariably present.

Some polishes dry too rapidly on application. This results in the user having to polish too small an area at a time. As little as 2 per cent of glycerine or ethylene, (not diethylene) glycol may slow up the drying in certain polishes to the point that will permit polishing a reasonable area; that is, a panel or a door at a time.

UT and out auto cleaners vary widely in composition also. Although basically they are merely soap and abrasive with or without the addition of organic solvent and wax. The paste type may run as high as 30 per cent abrasive and 12 per cent soap while in the liquid these figures are obviously lower.

As stated earlier since this type of product is used only at infrequent intervals, the abrasive may be relatively hard. Most infusorial earths used alone are too slow. Tripoli is perhaps the best suited for this type product, although a mixture of the two has been observed. The tripoli gives the speed and the infusorial earth, a nice finish. The use of limited amounts of solvent is not without foundation for the scouring or mechanical cleansing is thereby augmented by chemical action.

If a small amount of wax (about two to three per cent) is incorporated, the cleaner is less harsh to the feel. In addition, after being wiped off, the surface is not dull and lifeless but has some semblance of a gloss. It is, therefore, a useful addition even though largely psycological. The suggested abrasives and usual soaps in such high concentration makes an uninviting looking mass. The use of rose tripoli or the addition of ochre, venetian red or a bit of rouge will usually correct this shortcoming.

AX polish is the most durable, least likely to show finger marks and to pick up dust, but application involves the most labor, which unquestionably holds down its sale. Paste wax polish is a specialty in which the "know-how" is to the formula about as 100 is to 1. In other words, its manufacture is far

more of an art than a science. There are a number of reasons for this. The principal one of which is the fact that waxes do not form solutions in the usual solvents at room temperature.

This can be confirmed by cutting a small piece of wax polish from most any commercial trademarked package and pressing it between the thumb and fore-finger, when solvents will be observed to exude. If there is any doubt, a piece may be pressed between two glass plates when liquid solvent will form a ring about the compressed wax. A paste wax polish then for convenience may be looked upon as a three dimensional spider web of wax supporting the solvent or liquid portion.

Most polishes have a base of carnauba wax to which candellila wax, chinese wax (insect wax), beeswax, high M. P. paraffin, ceresin, ozokerite and montan may be added either to reduce the cost, to modify the carnauba in use or to render it less unwieldy in manufacture and packaging. Among the synthetic waxes, the I. G. waxes are perhaps the best suited to replace carnauba entirely or in part because they are more workable and less skill and care is required in manufacture.

Turpentine, benzine and varnish makers' and painters' naphtha, as well as other hydrocarbon cuts are the usual solvents employed. The ratio of turpentine to hydrocarbon solvents has been observed to be as low as 1 to 15, due doubtless to the relatively higher cost of turpentine. A ratio of one to four or five appears to be much better practice. The wax content has been observed to run from 22.5 to 30 per cent wax, the solvent, (or more accurately the liquid portion) representing the balance.

For example, one of the best sellers upon analysis ran 30.04 per cent wax of a melting point of 79.0° C. and saponification number of 34. The composition of another is 9.33 per cent carnauba wax, 9.66 per cent paraffin of 128° F. melting point and 2.5 per cent ozokerite, 75 per cent petroleum naphtha and 4 per cent turpentine with sufficient color.

One writer goes so far as to state that certain commercial paste waxes have a higher concentration of carnauba wax near the bottom of the can than near the top of the container. He claims that this defect is noticed by porters and chauffeurs who work directly toward the bottom of the can and ignore the concentric ring of wax under the rim of the container in their eagerness to produce a good lustre. This has not been confirmed, but is probably accurate since the same has been observed repeatedly by this writer as the shine boy has worked on his shoes.

A study of the solubility of various waxes, wax mixtures and various solvents is quite interesting, but falls without the scope of this discussion. A further study should prove interesting and profitable, since judging from the literature, little has been done or at least published. It will prove a revelation to workers in fats and oils who calculate the titre of a soap from that of

the various fats and oils that went into the kettle charge.

A satisfactory procedure in the manufacture of paste polishes is as follows. Melt the wax or mixture of waxes in a jacketed kettle and strain into a second kettle containing the turpentine with agitation. Cool to about 100° F. and add the naphtha and color, if desired, continuing the agitation. Warm to 118-120° F., mix thoroughly and fill off under a powerful current of air from above, bearing always in mind the inflammable nature of the mixture. In conclusion, the writer will refrain from a discussion of packaging, label copy and merchandising as is his usual wont through fear of waxing hyper-critical.

Insecticide Tests Compared

(From Page 97)

In Series No. 4 three commercially available petroleum distillates were used.

Sample No. 1-"Deo-Base".

Sample No. 2-Bayol "D".

Sample No. 3-Ordinary Kerosene.

In the "Peet-Grady" portion of this series the data presented are a summary of ten individual tests, while in the "Turn-Table" portion of the series the results are a summary of twenty individual tests.

	Me	Method Used-"Peet-Grady"			
Sample No.	No. of tests	Total number of insects	% down 10 minutes	% dead 24 hours	
1	10		9	6	
2	10		10	6	
3	10		36	22	
	Method	Used-Campbell "Turn-Table"			
1	20		32	20	
2	20		42	21	
3	20		72	29	

We have chosen this time to present the above comparative figures because we are asked regularly by fly spray manufacturers whether these two methods could be used interchangeably. At the present time we are only in a position to give this preliminary comparative data. The "Peet-Grady" method yields higher kills on pyrethrum sprays and thiocyanate sprays than does the Campbell "Turn-Table" method; while the "Turn-Table" method yields higher kills on sprays that contain rotenone than it does with straight Pyrethrum sprays.

Since the N.A.I.D.M. has given the industry a standard sample which may be used as a check for all its oil-type sprays a definite connection between the two methods becomes more readily possible. Our comparative tests are being continued on this basis at the present time.

The outstanding advantage of the Campbell "Turn-Table" method are: first, that many more tests can be completed in one day; and second, that it offers a possible means of testing aqueous sprays as well as dusts.

Therefore, we feel that it is entirely sound to make a statement at this time that manufacturers of proprietary products will find the "turn-table" method to be a valuable unit, and could well afford to make such an installation in their laboratory. (Further data on this subject which will appear in "SOAP" at a future date.

—Editor.)

Insecticide and Germicide Patents Reviewed

By Dr. R. C. Roark

Division of Insecticide Investigations Bureau of Entomology & Plant Quarantine

(Part II)

PATENTS covering insecticides, both household and agricultural, disinfectants, germicides, and allied products which have been extracted and reviewed during the past year as part of the regular service of Dr. Roark of the Bureau of Entomology and Plant Quarantine, have been selected and outlined herewith. This is the second of two reviews of these patents.—The Editors.

Spray Composition. 2,013,272 (Sept. 3, 1935; appl. Feb. 24, 1932). Maxwell O. Johnson, Wahaiwa, Territory of Hawaii.—A spray composition consists of water, iron sulphate, clay, and refined mineral oil, the whole constituting a stable emulsion until sprayed and a quick-breaking emulsion on being sprayed to deliver the oil or an insecticide and the iron as a plant protector against plant poisoning. This is intended for use against mealy bugs on pincapples.

Amyl Substitution Product of Amylene Diamine. 2,014,077 (Sept. 10, 1935; appl. June 21, 1932). Melville M. Wilson, Chicago, Ill.—Sharples Solvents Corporation, Philadelphia, Pa.—The patentee claims the method of forming a nitrogen containing composition of matter which comprises reacting an amino substitution product of pentane chosen from the class consisting of monoamylamine and di-amylamine, with a dihalogeno substitution product of pentane. These compounds are insecticidal at a dilution of 1:800 and may be used advantageously with spray oils.

Colloidal Insecticides. 2,014,139 Sept. 10, 1935; appl. June 26, 1933; in Great Britain July 9, 1932). Ernest C. Large, North Acton, London, England.—Electro Chemical Processes Limited, London, England.—A process for the production of an aqueous insecticidal preparation comprises kneading an insoluble complex fluoride of the class including barium silico fluoride and cryolite, a proportion of sulphite lye, and a small proportion of a barium salt of an acid weaker than hydrofluosilicic acid, into a stiff aqueous paste and then diluting with water the paste so formed.

Germicide. 2,014,676 (Sept. 17, 1935; appl. Nov. 19, 1934). Lyle A. Weed, Iowa City, Iowa.—The Hamilton Laboratories, Inc., Hamilton, Ohio.—A germicidal preparation for use in suitable concentration in contact with tissue of a living human being or other higher animal for the purpose of combating the attack of pathogenic microorganisms on said animal, without harming the animal, comprises an organic mercury compound having the formula RHgX where R represents a phenyl radical carrying no substituent groups which will react with either alkalies or acids to form salts and wherein X represents

an element or radical which exists as an anion when the compound is dissolved in water.

Devitalization of Pathogenic Micro-Organisms. 2,014,720 (Sept. 17, 1935; appl. May 19, 1931). Walter G. Christiansen, Bloomfield, N. J. and Eugene Moness, Far Rockaway, and Sidney E. Harris, Brooklyn, N. Y.—E. R. Squibb & Sons, New York, N. Y.—A germicidal and antiseptic composition comprises an aqueous solution of monochloro-ortho phenylphenol.

Insecticide. 2,015,045 (Sept. 17, 1935). Charles F. Teichmann, New York, N. Y.—The Texas Company, New York, N. Y.—An insecticide and fungicide comprises a mixture of phenol naphthenates and a petroleum hydrocarbon oil.

Composition for Mothproofing. 2,015,533 (Sept. 24, 1935; appl. Mar. 16, 1932). Richard M. Ritter, Elkins Park, Pa.—A mothproofing composition comprises a dry solvent and brucine analine. For example: Animal fibers are rendered permanently immune to moths and mildew by treating them at 140° F. for about twenty minutes in a 1½ solution of any of the following mixtures: (A) three parts brucine anilide acetate, six parts anhydrous solid sulphate, two parts tartar emetic acid, one-half part saponin; (B) three parts brucine anilide hydrochloride, seven parts anhydrous sodium sulphate, one part aluminum sulphate, one-half part saponin; (C) three parts brucine anilide formate, six parts anhydrous sodium sulphate, one and one-half parts zinc sulphate, one-half part saponin.

Insecticide. 2,017,506 (Oct. 15, 1935; appl. June 26, 1933). Lindley E. Mills, Midland, Mich.—The Dow Chemical Company, Midland, Mich.—A composition of matter suitable for use as a plant and tree spray consists of 0.5 to 1.0 per cent by weight of a petroleum fraction having a sulphonation value between about 75 and about 85, from 0.2 to 0.5 per cent of ortho-dichlorobenzene, an emulsifying agent, (e. g. calcium caseinate), and water.

Insecticide. 2,017,594 (Oct. 15, 1935; appl. Jan. 16, 1932). Charles B. Gnadinger, Minneapolis, Minn.—The patentee claims insecticides containing sodium, potassium, potassium-ammonium and sodium-ammonium seleno-sulphides. A diluted spray ready for use may contain for example .20 g. potassium hydroxide, 12 g. hydrogen sulphide, .061 g. ammonia and .05 g. selenium per 100 cc. This is especially effective against red spider (Tetranychus telarius L.).

Insecticide. 2,017,595 (Oct. 15, 1935; appl. Feb. 4, 1935). Charles B. Gnadinger, Minneapolis, Minn.—The patentee claims an insecticide containing ammonium seleno-sulphide. He also claims a process for making the substance described which consists, in saturating approximately 19 pounds of ammonium hydroxide solution containing approximately 28 per cent ammonium with hydrogen sulphide, then adding approximately one-half pound of selenium and shaking until dissolved, then diluting to

approximately 5 gallons, with water, and finally diluting approximately 1 gallon of the above product with approximately 100 to 800 gallons of water.

Method of Manufacturing Bacterial Solutions. 2,020,647 (Nov. 12, 1935; appl. May 28, 1934; in Great Britain June 7, 1933). Roderick F. Hunwicke, Barnet, England.-It is an object of the present invention to provide an improved method of dissolving bacteria whereby bacterial solutions are obtained in which the antigenic properties of the bacterial toxins are unimpaired. A method of manufacturing dissolved vaccines includes the steps of preparing a suspension of bacteria, adding to said suspension an equal part of a solvent obtained by mixing one part of 11/2 to 2 per cent solution of the sodium salt of lauryl alcohol sulphuric ester with one part of a 3.6 per cent solution of sodium hydroxide, maintaining the temperature of the mixture at 42° C. until solution is complete, neutralizing the solution with hydrochloric acid and adjusting the sodium chloride content to that of normal saline.

Germicide, Fungicide, or Insecticide. 2,020,648 (Nov. 12, 1935; appl. Mar. 14, 1933). Julius Hyman, Chicago, Ill. — Velsicol Corporation, Chicago, Ill. — A process of manufacturing oxidized products having organic peroxides, comprises subjecting a fraction of a polymer derived from vapor phase cracked gasoline, said fraction boiling in the kerosene and/or gas-oil range, to molecular oxygen oxidation by blowing a stream of air through the fraction being oxidized in sufficient amount to thoroughly agitate the fraction, in the presence of a siccative metallic soap or soap-forming compound of a siccative metal, until precipitation substantially ceases, condensing volatile constituents carried away by the air stream, returning said condensate to the blowing receptacle, separating the precipitate and recovering the filtrate.

Spray Composition. 2,022,246 (Nov. 26, 1935; appl. Oct. 6, 1931). Frank F. Lindstaedt, Oakland, Calif.— Hercules Glue Company, Ltd., San Francisco, Calif.-A spraying emulsion for use as in scale treatment comprises an emulsion including a low viscosity oil of a type readily eliminated by the plant vascular system and less than 1 per cent of a carrier agent for said oil increasing the deposit of oil per unit area of plant surface sprayed. For example, the following formula gives good results: clay 20 grams, potassium amyl xanthate 1 gram, methyl alcohol 8 cc., copper chloride 0.4 gram, oil (45 viscosity) 80 cc., water 40 cc. The potassium amyl xanthate is dissolved in 5 cc. of the alcohol and added to the clay, then the copper chloride is dissolved in 3 cc. of the alcohol and this added to the clay mixture. The alcohol is then evaporated from the mixture and the oil added, followed by the addition of the water. A vigorous agitation of these materials introduces a soft free flowing emulsion. In this case amyl dixanthogen is formed and precipitated on the clay. When this emulsion was used at 2 per cent strength in the spray tank a heavy and lasting deposit was secured. In place of the copper amyl xanthate any other heavy metal xanthate, such as lead amyl xanthate, may be used to form a precipitate on

Process for Refining of Alkyl Phenols. 2,022,256 (Nov. 26, 1935; appl. Dec. 1, 1933). Reuben Schuler, Elizabeth, N. J.—Stanco, Incorporated.—A process of refining crude alkyl phenols containing an alkyl group of not less than 4 carbon atoms by removing therefrom alkyl phenyl ethers, comprises dissolving said crude phenols in liquid ammonia, separating said crude phenols in liquid ammonia, separating the ammonia solution from undissolved residue containing alkyl phenyl ethers, and then separating the dissolved phenols from the liquid ammonia.

Aryl Mercuric Heterocyclic Carboxylates. 2,022,997 (Dec. 3, 1935; appl. Jan. 9, 1935). Carl N. Andersen, Watertown, Mass.—Lever Brothers Co.—The patentee claims a new organic compound of the general formula X(RHg)R, in which R represents an aromatic structure to a carbon atom of which the mercury is directly attached

and in which none of the carbon atoms has direct linkage with any element other than hydrogen, carbon and mercury; in which X is an integer having a value of at least one; and in which R, represents a heterocyclic acid radical that is linked to the RHg group through the replacement of the hydrogen atom of the acidic group. Examples are phenylmercury fuorate, phenylmercury quinolinate, phenylmercury 2-phenylquinoline 4-carboxylate.

Livestock Spray. 2,023,140 (Dec. 3, 1935; appl. Oct. 19, 1932). Gideon J. Malherbe, Martinez, Calif.—Shell Development Co., San Francisco, Calif.—A fly-repelling spray, comprises a refined mineral oil having the 90 per cent distillation point below $400\,^{\circ}$ C. and viscosity of from 40 to 75 seconds Say. Univ. at $100\,^{\circ}$ F., and a pine oil repellent having the corresponding distillation temperature point not lower than $60\,^{\circ}$ C. from that of said mineral oil.

Alkyl Chloro-Dioxy-Benzols. 2,023,160 (Dec. 3, 1935; appl. Mar. 14, 1934). William E. Austin, New York, N. Y. —The patentee claims alkyl derivatives of chlorodioxy benzols having the general formula $C_8H_2CI(OH)_2CR_1R_2R_4$ where R_1 , R_2 , R_3 are alkyls, either straight-chained or branched, and the OH groups being either in ortho, in meta, or in para position to each other. An example is tertiary butyl chloro-resorcinol. These compounds possess especial germicidal and antiseptic activity coupled with relatively low toxicity.

Insecticide. 2,024,098 (Dec. 10, 1935; appl. May 31, 1929). Leon C. Heckert, Bristol, Pa.—Rohm & Haas Co., Philadelphia, Pa.—A process of exterminating insects comprises treating them with a substance selected from the group consisting of thiocyanotoluidine, thiocyanoanisidine, p-thiocyanophenyl morpholine, p-thiocyanobenzol aniline, 2-4-dinitrothiocyano benzene, thiocyanoacetophenone, p-thiocyanodimethyl aniline, phenylthiocyanate and thiocyanate-alpha-naphthylamine.

Insecticidal Preparation. 2,024,392 (Dec. 17, 1935; appl. Dec. 12, 1933; in Germany Nov. 13, 1931). Herbert Schotte and Karl Gornitz, Berlin, Germany-Schering-Kahlbaum A. G., Berlin, Germany.—An insecticidal preparation consists of a mixture containing rotenone and veratrin. It was found that by combining one of these drugs containing rotenone with a drug containing veratrin, CarHaaOuN, for instance sabadilla seed or an extract or alkaloids recovered from such products, an insecticidal effect is obtained, which is far greater than the effects exerted by the two drugs if used singly. A ground mixture of 2.5 parts radix derridis ellipticae, 7.5 parts semen sabadillae and 90 parts talcum proved useful in exterminating grasshoppers (for instance Tachycines asynamorus), flea beetles, bugs (Lygus campestris) and many kinds of caterpillars.

Poultry Lice Externinator. 2,024,895 (Dec. 17, 1935; appl. May 27, 1931). Arthur H. Teigen, Madison, Wis.—Pratt Food Company—An insecticide for use on poultry perches, is a non-volatile, sticky, adherent fluid containing 5 per cent free nicotine and 95 per cent corn oil.

Insecticidal Spray. 2,028,109 (Jan. 14, 1936; appl. Apr. 9, 1934). Irwin Stone, New York, N. Y.—A process of facilitating the removal of spray residues consists in incorporating in the spray compound an aqueous-insoluble material (e.g. zinc carbonate) which is inert toward said compound, but which reacts with acid wash solutions to form a gas which mechanically dislodges the residue film.

Alkyl Resorcinols. 2,030,423 (Feb. 11, 1936; appl. July 26, 1933). William E. Austin, New York, N. Y.—Bank of The Manhattan Company.—The patentee claims alkyl resorcinols of the general formula $C_{\rm e}H_1(OH)_{\rm z}(CHR_1R_2)$ where H is hydrogen, and R_1 and R_2 are alkyls, the group (CHR_1R_2) containing not less than seven carbon atoms, and being attached to the resorcinol nucleus by a carbon other than an end carbon. The new alkyl resorcinols are characterized by special germicidal and antiseptic properties combined with practical non-toxicity.

Insecticide. 2,030,584 (Feb. 11, 1936; appl. June 5, 1934). Clyde C. Hamilton, Highland Park, N. J.—The patentee claims an insecticide emulsion including, water, a suitable oil, a preservative and finely powdered natural parts of a plant selected from the group consisting of derris and cube root containing an inherent emulsifier and properties toxic to insects, said emulsion being supplemented when said plant parts are reduced in amount as herein set forth by an auxiliary emulsifier such as colloidal clay in small amount.

Dry Soluble Chlorine Compound. 2,032,173 (Feb. 25, 1936; appl. Aug. 3, 1935). Arnold H. Johnson and Henning A. Trebler, Baltimore, Md.—Sealtest System Laboratories, Inc., New York, N. Y.—A dry water-soluble chlorine compound comprises calcium hypochlorite and a solubilizing agent for the same comprising sodium hexametaphosphate which yields soluble compounds of the cation of the hypochlorite on the alkaline side of neutrality in aqueous solution, and an alkali compound selected from a group consisting of soda ash, trisodium phosphate and sodium metasilicate.

Insecticide. 2,034,152 (Mar. 17, 1936; appl. April 6, 1932). William C. Parrish, Portland, Oreg.-The patentee claims an oil composition made effective as an insecticide adapted for spraying in aqueous dispersions upon plants and trees in foliage by being made from ingredients adjusted in such amounts of one component with another that the resultant compound shall be lethal to insect life but not caustic nor destructive to plant tissue being composed substantially of less viscous, less volatile, mineral oil existing as saturated compounds of hydrocarbon, 60 per cent to 84 per cent: mineral oil existing as unsaturated hydrocarbons combined with the organic fatty acids of fixed oils, 6 per cent to 30 per cent: organic fatty acids existing as monovalent alkali soap, 2 per cent to 3 per cent: organic fatty acids existing as ethyl esters, 11/2 per cent to 4 per cent; glycerine 11/4 per cent to 3 per cent; soluble starch in aqueous solution with its molecular equivalent of monovalent alkali, 11/2 per cent to

Insecticide Composition. 2,035,546 (Mar. 31, 1936; appl. May 14, 1932). Clyde C. Hamilton, Highland Park, N. J.—Endownment Foundation, New Brunswick, N. J.—A paste composition to be used in paste form for killing boring insects includes a colloidal clay, and insecticide (e. g., nicotine, pyrethrins or rotenone) and water in amount only to form a paste.

Emulsifiable Oil Disinfectant. 2,036,470 (Apr. 7, 1936; appl. Oct. 24, 1931). Norman N. Gay, Berkeley, Calif.—Standard Oil Company of California, San Francisco, Calif.—The patentee claims a substantially stable hydrocarbonsoap compound adapted to form a stable emulsion upon dilution with water, consisting essentially of: 10 per cent to 95 per cent of a mixture of oil soluble alkali metal salts of petroleum sulfonic acids and water soluble alkali metal rosin soaps, in a ratio of between 0.2 and 0.8 parts of water soluble rosin soaps to one part of sulfonic acid soaps on an anhydrous oil-free basis; 5 per cent to 90 per cent of a mixture of paraffin and vegetable wax; and water in quantity varying from about 0.5 per cent to 1.5 per cent of water at 90 per cent wax content to form about 4.5 per cent to 14.5 per cent of water at 5 per cent wax content. This may be used as a disinfectant.

Complex Phenolic Soap. 2,036,916 (Apr. 7, 1936; appl. May 28, 1934). Herman A. Bruson, Philadelphia, Pa.—Rohm & Haas Company, Philadelphia, Pa.—The patentee claims a salt having as its basic constituent a preformed, non-resinous complex condensation product of equi-molecular quantities of phenol, diethanolamine and formal-dehyde and as its acid constituent cetyl sulfuric acid. The soaps prepared in accordance with this invention can be used as emulsifying agents for oils, fats, and waxes and as ingredients in insecticide compositions.

Insecticide. 2,037,276 (Apr. 14, 1936; appl. July 7, 1933). Carl Sgonina, Henderson, Ky.—An insecticide spray com-

prises the material resulting from mixing water, a fatty acid, and tobacco extract embodying nicotine in the form of nicotine sulphate. Tobacco extract, (formed from tobacco by treatment with hot water or by other known methods and containing from 1 per cent to 2 per cent nicotine) is first treated with sufficient sulphuric acid to convert all or a major portion of its nicotine content into nicotine sulphate. The extract is then concentrated under vacuum to a density of 38 to 40 degrees Baume, and to this concentrate is added fatty acids in the proportion of approximately one pound of fatty acids to six pounds of concentrated extract. When this concentrate is diluted with water, using, for example, five ounces of concentrate to six gallons of water, a spray is formed which contains about .05 per cent of nicotine which has been found to be sufficiently effective for most spray purposes.

Mono-Acetoxy-Mercuri-Alkyl-Phenol-Sulphonic Acid. 2,037,371 (Apr. 14, 1936; appl. Jan. 25, 1935). Emil C. Fanto, Fairfield, and Allen L. Omohundro, Wilton, Conn.—McKesson & Robbins, Inc., Bridgeport, Conn.—The patentees claim a new water-soluble organo-mercuri compound, 6 acetoxy-mercury-4-(beta-ethyl hexyl)-phenol-2-sulphonic acid, in which one bond of the mercury is attached directly to a carbon atom on the benzene nucleus, and the remaining bond attached directly to an acetoxy radical.

Xanthates. 2,037,437 (Apr. 14, 1936; appl. Nov. 11, 1929). Ludwig Rosenstein, San Francisco, Calif.—American Cyanamid Company.—The patentee claims as a new composition of matter, an alkali metal xanthate of a monohydric, aliphatic, unsubstituted, saturated secondary alcohol (e.g. isopropyl alcohol). These new xanthates of secondary and tertiary alcohols are useful as in flotation processes, for insecticides and as vulcanizing accelerators.

Xanthates. 2,037,717 (Apr. 21, 1936; appl. Nov. 9, 1932). George DeWitt Graves, Wilmington, Del.—E. I. du Pont de Nemours & Company, Wilmington, Del.—The patentee claims a xanthate of a monohydric primary alcohol containing from seventeen to eighteen carbon atoms. These are effective as insecticides, aphicides, etc.

Xanthates. 2,037,718 (Apr. 21, 1936; appl. Nov. 9, 1932). George DeWitt Graves, Wilmington, Del.—E. I. du Pont de Nemours & Company, Wilmington, Del.—The patentee claims a substantially pure xanthate of an aliphatic primary monohydric alcohol containing from six to fifteen carbon atoms. They are effective as insecticides, particularly those containing about twelve carbon atoms in the molecule, e. g., dodecyl xanthate.

Phenolic Morpholines. 2,040,039 (May 5, 1936; appl. Feb. 26, 1935). Herman A. Bruson, Elkins Park, Pa.—Rohm & Haas Company, Philadelphia, Pa.—The patentee claims a condensation product of a phenol with at least one molecular equivalent each of formaldehyde and morpholine. These new phenolic morpholine derivatives are useful therapeutically and as ingredients of soaps, wetting and emulsifying agents. They may also be used in bactericidal and insecticidal compositions.

Morpholino-Metho Polyhydric Phenols. 2,040,040 (May 5, 1936; appl. June 27, 1935). Herman A. Bruson, Elkins Park, Pa.—Rohm & Haas Company, Philadelphia, Pa.—The patentee claims as a new compound, a polyhydric phenol containing as a nuclear substituent a morpholinometho group. The new morpholinometho-polyhydric phenols are useful as ingredients of bactericidal and insecticidal compositions, as fungicides, anti-oxidants and dyestuff intermediates.

Destroying Moth Life. 2,041,219 (May 19, 1936; appl. Apr. 13, 1935). Marion E. Wade, Chicago, Ill. Moth King Corporation, Chicago, Ill.—Orthodichlorobenzene is used as a fumigant.

Insecticide Material. 2,041,298 (May 19, 1936; appl. Dec. 28, 1932). Warren Moore, Richmond, Va.—Tobacco By-Products and Chemical Corp., Louisville, Ky.—An (Turn to Page 111)

SYNTHETIC WAXES

Their Properties and Uses in Commercial Products

By Charles S. Glickman

CYNTHETIC chemistry has advanced commercially to the stage where it can now not only duplicate some of the most widely used products of nature. but has also succeeded in preparing substitutes which are in many ways superior to their natural homologues. The reasons for such development are not difficult to appreciate, if one regards the increasing demand for certain products which are necessarily limited in production because of their existence in limited quantities. and by virtue of the fact that they are derived from uncultivated sources. Not long ago a news item stated that an expedition of a well-known corporation was exploring the wilds of South America with a view to finding new sources for a certain natural wax. There have been, likewise, reports in the papers of large amounts of money being spent to duplicate certain of the more important natural waxes from semi-synthetic materials. All of these reports are merely surface reflections of an undercurrent of activity to overcome the restrictions and barriers which nature has erected in the path of organized industry.

There have been many reports claiming success in their efforts to overcome these natural obstacles. Some of these claims and the products specified have been worthy of attention and substitution for natural products. On the other hand, we are constantly being assailed by aggressive advertising of products all replete with specifications and formulae in an effort to force recognition and acceptance while the materials described are untested and still warm in the laboratory beaker. There can be no doubt then why reputable manufacturers cast a wary eye upon innovations in the way of synthetic substitutes even while the need for them definitely exists.

In view of the facts, this discussion will be confined to such products as have been proven satisfactory and worthy of further attention. Attention will also be directed to the possibilities of utilizing certain types of products which are not being used today, to any extent, for purposes of substitution. Several methods of preparation and the underlying principles involved will be lightly touched upon, and while the information disseminated will for the most part not be descriptive enough in detail for actual working directions, it is hoped that they will arouse sufficient interest to warrant those interested to pursue the matter further. Methods for the use of these products in a variety of commercial preparations from automobile and floor finishes to cosmetics will be found in the latter part of this article.

Before delving into any discussions of methods of manufacture, catalysts, addition processes, etc., it would be well to consider such facts as,-why other natural waxes, similar to carnauba in appearance and structure, do not act in the same manner when incorporated into water wax emulsions? Those who have had the experience with carnauba wax "graining out" of solution might want to know why the addition of certain other softer or harder waxes will prevent such action. Perhaps some day, some research chemist interested in the subject will investigate the matter from a viewpoint of relative saponification values or molecular structure and make possible the use of other waxes in place of carnauba. The answer to such questions will probably come after we have done sufficient work with the pure compounds that go to make up a wax,-the acids, alcohols and esters that compose the natural waxes.

Synthetic waxes when compared with the corresponding or nearly corresponding natural materials show a vast difference as regards purity.—the natural products as a group being impure, and the synthetic ones generally free from foreign material. Furthermore, synthetic products when prepared under carefully controlled conditions show unvarying uniformity as regards melting point, color, odor, and physical structure. These factors are of prime importance in formulation as there can be practically no variation in the finished product because the materials employed are the same, batch for batch.

Of further interest is their amorphous structure and ease of solubility. Due to uniform composition, they will generally dye more easily, and a greater variety of desirable shades will be attainable because of their extremely light color. Synthetic waxes, unlike carnauba, will not grain out of solution, as the former on the whole, are composed of alcohols and esters derived from the same source of material, and not a varying mixture of glycerides of higher fatty acids plus esters of higher alcohols as is carnauba.

Synthetic waxes are prepared today by any of three general methods. They are made by hydrogenation of fatty acids or alcohols, halogenation of organic materials such as naphthalene, or the addition of certain organo-metallic compounds to natural waxes. This last method is not in widespread use and is mainly employed where it is desirable to raise the melting point of the original material. The two methods, hydrogena-



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FEDERAL VARNISH CO. 337 South Peoria St. CHICAGO - - - ILLINOIS tion and halogenation, depend upon definite changes in the structure of the molecule. Use of the latter method, addition of foreign material, gives rise to a complex colloidal state which in reality may be classified as a physical rather than a chemical change.

Preparation of synthetic waxes by means of halogenation is by no means a difficult or lengthy procedure involving extensive equipment. Diphenyl and naphthalene, as well as cymene, have given rise to numerous products which are closely allied to both the waxes and the natural gums and resins in appearance and characteristics. While some of the products resulting from such reactions have been found satisfactory in the preparation of certain industrial items, the field is by no means exhausted and numerous other uses can still be found and applied.

Preparation of synthetic waxes by means of the addition of certain organic compounds has also resulted in a multitude of new products. In the course of some work in the past the author had occasion to prepare such products by this method and starting with paraffin, prepared products having melting points well over 100° C. The products were white in color, flexible to some extent, and soluble in the usual organic solvents. What is probably characteristic of this type of product is the action upon the application of heat. Instead of melting directly when the critical temperature is reached, an intermediate stage appears at which point the wax is colorless and soft but does not flow as natural waxes do.

Ordinary tests were inaccurate in determining the exact melting point, and as a result the author found it necessary to devise a new method of determining melting points which took into account this phenemenon and called this intermediate stage the "softening point" to distinguish it from the true melting point. Comparisons of standard methods and this new method revealed discrepancies of as high as thirty degrees when the former method was employed. These products of course were much cheaper to produce than waxes of the same melting point and color which could be bought on the open market. The unique property of these waxes.the so-called "softening point", makes them applicable for use in dental waxes. Their added property of flexibility makes them applicable for the coating of artificial flowers, paper, and similar uses.

Preparation of synthetic waxes by hydrogenation involves the use of hydrogen, catalysts, high pressures and temperatures as well as highly specialized equipment. The hydrogenation of organic materials can be divided into three simple classes:

- 1. Reduction of carboxyl (—COOH) groups to alcohol (—OH) groups as X—COO—Y plus $2H_2$ equals X— CH_2OH plus YOH.
- 2. Reduction of an ethylenic (—C—C—) linkage as X—CH:CHY plus H, equals X—CH,—CH,Y.

3. Reduction of a carbonyl (—C—O) group to an alcohol (—OH) group as X—CH₂—CO—Y plus H₂ equals X—CH₂—CHOH—Y, where in (1) X is either a hydroaromatic or an aliphatic group and Y, the same or a hydrogen atom; (2) X and Y are either aromatic or aliphatic groups; (3) X is either an aromatic or aliphatic group and Y the same or a hydrogen atom.

For example, in the third type of reaction, starting with methyl alcohol and reducing with hydrogen under the proper conditions of pressure and temperature, it is possible to build up higher alcohols in this fashion:

- (a) 2CH₃OH plus H₂ equals C₂H₅OH plus H₂O
- (b) CH₃OH plus C₂H₅OH plus H₂ equals C_3H_7OH plus H₂O
- (c) 2C₂H₅OH plus H₂ equals C₄H₉OH plus H₂O, etc.

The conditions of temperature, pressure and type of catalyst determine the formula and structure of the final product. Under the proper conditions, paraffin hydrocarbons can be prepared from low molecular weight olefines such as hexene, butene, and propylene and ethylene, by passing the olefine and hydrogen over a nickel catalyst at atmospheric pressure and at a temperature of from 100-200° C. This reaction is accomplished in the vapor phase. When treatment of the higher molecular weight olefines is desired, reduction is made in a shaking or stirring autoclave under higher conditions of temperature and pressure. These last two reactions are typical of the second type of reduction, namely, reduction of an ethylenic linkage.

The third of the type reactions listed in a previous paragraph may be utilized to convert the *carbonyl* group in ketones, aldehydes, esters and acids to a *hydroxyl* group which represents a partial reduction, or to a hydrocarbon group which would be representative of a complete reduction. By means of proper control over the factors affecting this type of reaction, it is possible to produce compounds containing as high as 70 carbon atoms to the molecule from carbon monoxide and hydrogen gas. What is probably most peculiar to this type of reaction is that the presence of strong bases in the catalyst favor the formation of solid paraffins.

In the first type of reaction wherein the carboyxl group in esters and acids is reduced to the corresponding hydroxyl group, it is necessary to control carefully the reaction in the presence of mild catalysts and relatively low pressures. In the event that further reduction is allowed to take place, then paraffin hydrocarbons are formed. In the following table (A), the products of reduction of some of the common fatty acids are presented together with the conditions of temperature, pressure, type of catalyst, reaction phase and the final products obtained:

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		A.			
Acid	Catalyst	Temp. C.	Pres-	Phase	e Final Product
Coconut Oil Acids	Cu-Zn-Cd Chromite	380	3000	Liq.	N-decyl alcohol, Lauryl alcohol
Laurie Acid	Cu-Zn-Cd Chromite	380	3000	Liq.	Lauryl alcohol, Lauryl laurate
Oleic Acid	Cu-Zn-Cd Chromite	350-420	3000	Liq.	Oleyl alcohol, Stearyl alcohol, esters
Stearic Acid	Zn-Cu Chromite	325	4200	Liq.	Stearyl alcohol
Stearine		* * *			Palmityl and Stearyl alcohols

eTURNING once more to our general discussion of synthetic waxes as a class, it is possible to formulate many new and interesting products suitable for use in polishes, etc., by the addition of solid hydrogenated oils and tallows to paraffin wax, to result in compounds white in color and of a higher melting point. For example, there are available today completely hydrogenated oils and tallows ranging in melting point from 43° C. to as high as 90° C. A table of the more common types commercially available is as follows:

В.	
Oil or Tallow	M.P. °C.
Soft Tallow	. 35-45
Coconut Oil	. 43-45
Hard Tallow	. 45-52
Very Hard Tallow	. 52-55
Whale Oil	
Cottonseed Oil	. 62-63
Olive Oil	. 68-69
Soy Bean Oil	. 69-71
Castor Oil	. 86-90

The synthetic waxes that are prepared by any of the three listed types of reactions known as hydrogenation and accompanied by the suitable variations in type of catalyst, pressure and temperature have given rise to a series of commercially available, in unlimited quantities, waxes which range in melting point from 50 to 108 degrees C. They are as follows:

Wax No.	M.P. °C.	Acid Value C.	Ester Value	Color
1.	105-108	10-15	110-125	Yellow
2.	80-83	15-20	140-145	Yellow
3.	82-84	142-152	25-35	Yellow
4.	75-77	50-60	125-135	Yellow
4. 5.	75-77	10-20	130-150	Brown
6.	50-	0-	10-	White
7.	101-103	0-	0-	White
8.	84-85	25-	130-	Yellow
9.	50-	0-	0-	Yellow
10.	60-	0-	145-150	White

Note—No. 8 is derived from commercial stearine. No. 9 is a mixture of palmityl and stearyl palmitates. No. 10 is a spermaceti substitute. No. 4 and 5 are substitutes for beeswax.

A detailed description of the waxes enumerated above stating the uses to which they can be applied, their physical characteristics and such additional characteristics as are not described in Table (C) follows:

Wax No. 1. This wax is one of the hardest of the synthetic waxes that is available in commercial quantities today. Its melting point is 20 degrees F. higher than carnauba. Its polishing properties are superior both in height of gloss and handling. It is, furthermore, lighter

in color than the finest grade of carnauba, and is more readily soluble in the standard hydrocarbon solvents. Upon solution, hot, in an organic solvent, a faintly colored jelly-like mass results on cooling. This state of solution will not change upon prolonged storage and never at any time will a gritty residue or sediment ensue as occurs with carnauba. The wax may be used in small quantities to increase the viscosity of mineral oils or fats, although for this purpose, the addition of organo-metallic compounds as previously stated will serve much better. Compounds of this wax in combination with certain natural waxes result in mixtures which will prove to be of interest in the impregnation of paper and textiles.

Wax No. 2. This wax which is quite comparable with carnauba as regards melting point and emulsifying and saponification properties, nevertheless exceeds the latter in working properties. It can be saponified to the extent of 90 per cent as compared with 45 per cent for carnauba. Emulsions of this product are smooth, and almost transparent, do not separate upon standing, and give an extremely high gloss upon buffing. It can be saponified either by dissolving the hot wax in a solution of water, chip soap and alkali with stirring till cool or by direct solution in soap and alkali and addition to hot water with stirring. In either case, the emulsion should be stirred until cold.

Wax No. 3. This wax can also be saponified by the same means as directed for Wax No. 2. It can be used to great advantage in the hardening of paraffin for use in the manufacture of candles and other wax products, in place of stearic acid. Its light color and hardness, equal to carnauba, lend themselves admirably to this purpose. Its emulsions are white.

Wax No. 4. This wax is a perfect substitute for beeswax and its higher melting point, light color and ease of saponification should make it a product of extreme interest to manufacturers of cosmetics and other users of beeswax. Its purity and unvarying quality are other factors in its favor as its natural homologue is subject to variations which are the result of its being a natural product. Its odor and plasticity are similar. It can be saponified more completely than beeswax and in its bleached or unbleached (Wax No. 4 or No. 5) form can be used in the manufacture of textile sizings, polishes, etc.

Wax No. 5. The unbleached form of Wax No. 4.

Wax No. 6. This wax is characterized by its extreme solubility in turpentine and its high lustre which exceeds that of any other natural or synthetic wax available today. Its hydrocarbon solutions are water white in color at slightly higher than ordinary temperatures when it is a liquid—when a solid at lower temperatures, the solutions are slightly milky. This is by far the best available wax on the market today for the manufacture of liquid floor polishes, and it can also be used with astonishing results in the preparation of furniture polishes, etc.

Wax No. 7. This wax is characteristic of the process described under hydrogenation methods wherein the reduction is carried out to the extent of paraffin hydrocarbon formations. In appearance it looks like paraffin, but its extremely high melting point—101-103° C.—and high gloss immediately belie this comparison. It is white in color with that transparency that is characteristic of paraffin. It is neutral, odorless, and unsaponifiable. It is furthermore completely free from any inorganic constituents. It can be used in the preparation of polishing compositions in conjunction with, let us say, paraffin. Its best use to date seems to be for the impregnation of paper food containers where its high melting point, absence of odor, and taste will serve to best advantage.

Wax No. 8. This wax is likewise suitable for a carnauba substitute. Its light color, also lighter than the finest grade of carnauba, ease of saponification and its ability not to "sweat" its solvent when incorporated into

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hydrocarbon solvent solutions make it preferable to the natural product. Its emulsions are more stable and when saponified with chip soap, its emulsion can be used in the impregnation of paper, etc.

Wax No. 9. This wax is a mixture of palmityl and stearyl alcohols and can be utilized to advantage in the preparation of textile wetting agents, by sulfonation and consequent formation of alkaline salts of the sulfonated alcohols. Other uses of this product have been in the formulation of nitrocellulose and cellulose acetate lacquers, essential oil and perfume fixatives, rubber softeners and plasticizers, and finally in the formation of interesting compounds with acid dyestuffs.

Wax No. 10. The principal use of this lustrous crystalline wax so much like true spermaceti lies in its use in cosmetic and textile preparations. It can be compounded with other waxes to brighten-up artificial silk, cotton, etc. It can also be used as a super-fatting agent in soaps.

THERE still remains another class of synthetic products which can be truly classed as synthetic waxes since in actual chemical structure and reactions they are akin to their natural homologues. These products, some of which are commercially available, under trade names, are the glycerol and diethylene glycol derivatives of the solid fatty acids. The preparation of the glycol derivatives only will be described as the preparation of the glycerol derivatives involve the application of certain engineering and catalytic principles as yet unpatented and therefore better unmentioned.

The diethylene glycol derivative of stearic acid is an almost white, odorless, and waxy solid of fair gloss. It is soluble in alcohol, and the other standard hydrocarbons and it is likewise dispersable in hot water with stirring. The melting point of this material is about 58 degrees C., and its dispersability in water lends itself to use as an emulsifying agent. The use of this product and other synthetic products described will be discussed in following paragraphs.

To prepare the above-described ester, it is necessary to have a kettle equipped with suitable heating capable of attaining a temperature of approximately 139 degrees C. and made of monel metal, iron or stainless steel or tin-lined copper. The kettle should also be fitted with a paddle-type stirrer. Stearic acid, triple pressed, in the amount of 115 parts by weight, and diethylene glycol in the amount of 23 parts by weight are slowly and carefully heated up to about 135 degrees C. The stearic acid should be of triple press purity as the other grades because of the presence of oleic acid, cause discoloration and the formation of sulfonated compounds.

At this point, the catalyst which is prepared by thoroughly mixing three parts by weight of anhydrous finely powdered sodium bisulfite with one part of finely powdered pure sodium bicarbonate is slowly added in small quantities and the stirring and heating continued. The maximum temperature of 139 degrees C. should be attained and kept for approximately two or three hours. Upon addition of the catalyst, effervescence ensues. The catalyst in the presence of heat and moisture breaks up into the following components,—sulfurous and carbonic

acids, and free sodium ions which combine with the stearic acid to form stearates. There is a remote possibility that the sulfurous acid combines with some of the glycol to form a sulfonated product, thereby giving the final mass a composition of several of the esters of diethylene glycol and stearic acid, sodium stearate and possibly some sulfonated products or combinations with the former esters. It is likewise possible to form other interesting esters by the same method, which would be useful in the preparation of emulsified wax compositions.

(To be concluded)

SYNTHETIC WAX

Synthetic wax is prepared from a fatty acid and a higher alcohol in the presence of a catalyst such as hydrogen chloride, in a solvent such as toluene in which the wax produced is less soluble than are the acid and the alcohol. When the reaction is almost completed, the temperature of the solvent is lowered and the wax is crystallized out and separated from the reaction system. Nippon Chisso Hiryo K. K. Japanese Patent No. 113,799.

TOXICITY OF ROTENONE

Rotenone has been described as nontoxic to warm-blooded animals. It has been discovered that toxicity depends on how the rotenone is administered. Rotenone dissolved in olive oil and fed to white rats had a toxicity comparable to that of strychnine which is a value at least 20 times as toxic as reported by a previous investigator. When given orally rotenone dissolved in oil is much more toxic than when given as the solid or in suspension. The oral minimum lethal dose for white rats is about 25 mg. per kilogram of body weight. Finely divided rotenone is more toxic than coarse crystals. Toxicity is increased by feeding fats, the increase being roughly parallel to the amount of fat ingested. Howard D. Lightbody and Joseph A. Mathews. *Ind. Eng. Chem.* 28, 809-11 (1936).

INSECTICIDE PATENTS REVISED

(From Page 104)

insecticide comprises the reaction products of resorcinol, formaldehyde and nicotine, said nicotine content being about 20 per cent to 25 per cent of the whole.

Insecticide. 2,042,296 (May 26, 1936; appl. Mar. 12, 1931). Hyym E. Buc, Roselle, N. J.—Standard Oil Development Company.—An insecticidal preparation comprises a relatively non-volatile petroleum oil, an insecticidal material selected from the group consisting of rotenone and rotenoids and a secondary hexyl cresyl ether, the amount of secondary hexyl cresyl ether being sufficient to keep insecticidal material dissolved in the petroleum oil. The following example will illustrate the present invention: 0.5 per cent rotenone, 5 per cent secondary hexyl cresyl ether, 94.5 per cent petroleum oil having a gravity of 27° A.P.I. and a viscosity of 115 Salbolt at 100° F.

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Opportunities to help you plan your 1937
Opportunities to help you plan your 1937
Paradichlorbenzene products would be welcomed
by us. Why not avail yourself of this service?

HOOKER ELECTROCHEMICAL COMPANY

Eastern Sales Offices: Lincoln Bldg., New York City; Works: Niagara Falls, N. Y.
Western Sales Offices: Tacoma, Wash.; Works: Tacoma, Wash.

6305

EDITORIALS

(From Page 95)

they will take at least one step to protect themselves against fakers. Most certainly the faker is mysterious about his product. He wants to keep the buyer in ignorance because he has to in order to sell his goods. The salesman who refuses to put his insecticide cards on the table should be viewed with suspicion. The chances are more than even that he is trying to misinform the buyer, deliberately and intentionally, as charged.



BOUT Cuba comes word that the disinfectant situation is rotten to the core. Under certain conditions, the use of coal-tar disinfectants there is compulsory by law. But inasmuch as the average Cuban user is not familiar with the details of an effective disinfectant, most anything can be sold as such just as long as it has the odor of coal-tar. Those disinfectants are most in demand, we understand, which can be cut several times and still look like disinfectant. Products which are suitable for the purpose intended, are diluted and adulterated to the point that when used they have little, if any disinfectant value. Inasmuch as Cuba is a large potential market for American disinfectants, manufacturers here have a very distinct interest in the situation. Most certainly somebody should explain to the health authorities what is taking place right under their very noses,-and also get them to tighten their laws and learn what phenol coefficient means.

To prepare a liquid metal polish which can also be used for cleaning windows and mirrors, dissolve 5 parts of curd soap in 50 parts of boiling water. This would set to a jelly by itself on cooling. Disperse in the hot soap solution 5 parts of olein distillate and 20 parts of finely ground chalk and saponify with 3 parts of 25 per cent ammonia (sp. gr. 0.91). After the temperature has fallen to about 60° C. (140° F.), stir in 17 parts of denatured alcohol. This keeps the mixture liquid. Seifensieder-Ztg. 63, 377 (1936).

The Chinese plant, lai-tung, is used as an insecticide. Besides other compounds, it contains 1.5-1.53 per cent of pure deguelin and 0.6 per cent of pure rotenone. Linguan Science J. 15, 335 (1936).

National Association of Insecticide and Disinfectant Manufacturers



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Active — All reputable persons, firms or corporations engaged in or allied with the business of manufacturing or distributing household insecticides, disinfectants and articles coming within the purview of the Federal Insecticide Act of 1910, shall be eligible for Active Membership. Dues—\$75.00 per year.

Associate — Open to firms supplying raw materials, containers, equipment, etc., to the membership. Dues—\$50.00 per year.

For further details, communicate with

NATIONAL ASSOCIATION OF INSECTICIDE & DISINFECTANT MANUFACTURERS

John H. Wright, Secretary

122 E. 42nd STREET

NEW YORK

CHEMICALS



Barrett Chemicals are the result of 82 years of successful manufacturing experience. They are produced to meet the most exacting demands for quality, uniformity and dependability. Barrett's unmatched service is assured with every order. Phone, wire or write for quotations.

AMMONIA LIQUOR ANHYDROUS AMMONIA BARRETAN*

BENZOL

CRESOLS U S. P., Meta Para, Ortho Special Fractions

CRESYLIC ACID
Straw Color and Dark

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HI-FLASH NAPHTHA HYDROCARBON OIL

NAPHTHALENE Crude, Refined Chipped, Flake and Ball

PHENOL (Natural)
U S. P 39.5° M. Pt. and 40° M Pt.
Technical 39° M. Pt.
Technical 82-84% and 90-92%

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PICOLINES

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Refined, Denaturing and Commercial
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THE TECHNICAL SERVICE BUREAU of The Barrett Company invites your consultation with its technically trained staff, without cost or obligation. Address The Technical Service Bureau. The Barrett Company, 40 Rector Street. New York.

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40 Rector Street, New York, N. Y.

LOWELL

STOPS BLIND SPOTS!

The blind spot in sprayers is that area between the poorly atomized drops without killing power.

The LOWELL NU-ACTION Sprayers send a high powered finely atomixed mist that produces a compact spray of uniform killing power. The blind spot is eliminated.

Sprayer experts and just ordinary folks are more than enthusiastic over the LOWELL NUACTION new highly atomized power.

We knew we had a good sprayer when we designed each feature—no leak—no drip—no siphoning — FULL POWERED FORCE TO THE VERY END OF THE STROKE.

Everywhere, no matter where Sprayer and Insecticide experts convene, they agree on Lowell Sprayers. They say: "They are satisfactory."

BLIND SPOT SPRAYING ELIMINATED

The diagram shows poorly atomized spray, notice the wasted blind spots—and compare with solid atomized mist in NU-ACTION sprayers!



Its a new mist spreading, POWER

Send now for the Complete Lowell Catalog of North Pier Terminal Opp. Navy Pier. Chicago

NEWS

Anderson of Holcomb Dead

Ira Anderson, general superintendent of the J. I. Holcomb Manufacturing Co., Indianapolis, for the past forty years, died in his sleep on the morning of July 22 at his home in Indianapolis. Mr. Anderson who had been in charge of manufacturing operations for Holcomb ever since the firm was founded in 1896 at Lafayette, Ind., was the first employe of I. I. Holcomb when he started the business. P. M. Goldrick, who has been associated with the Holcomb organization since 1914, and has been merchandise manager during recent vears, has been appointed general superintendent.

Baird-Hoyt as Sailors

Fred A. Hoyt, president of the Frederick Disinfectant Co., Atlanta, Ga., and C. C. Baird, president of Baird & McGuire, Holbrook, Mass., returned August 15 from a trip of ten days through the waters of Nova Scotia by boat. Both men who are widely known in the disinfectant industry, are past presidents of the National Association of Insecticide & Disinfectant Manufacturers.

William Goepel Dies

William J. Goepel, president of Pacific Chemical Co., Vancouver, Canada, manufacturers of soaps, deodorants, disinfectants, insecticides, etc., died recently at his home in Victoria, British Columbia, at the age of sixty-one, we are advised by his son, Clarence D. Goepel, secretary of the company.

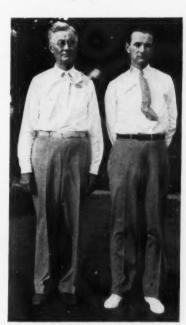
Protest "Ku-Rill" Advertising

A. C. Hynd Corp., Buffalo. has been ordered by the U. S. Federal Trade Commission to cease and desist from advertising its product "Ku-Rill" as a competent remedy in treating eczema and athlete's foot. Representations that the product instantly stops itching and soreness of the skin will also be discontinued.

The complaint was uncontested by A. C. Hynd Corp.

Fursts Win Father-Son Golf

F. E. Furst, president of Furst-McNess Co., Freeport, Ill., and his son, Charles W. Furst, also associated with the company, were the winners



of the Pater-Filius Cup in the annual tournament at the Midlothian Country Club, Chicago, on July 23. Competing in a field of 92 fathers and sons, the Fursts shot 170 with a handicap of 28 for a net of 142 to win by three strokes under Jack Hutchinson, the well-known professional, and his son, Edgar, of Glen View. Both Fursts are members of the Freeport Country Club of Freeport, Ill. Charles Furst tied for low gross recently in the annual golf tournament of the National Association of Insecticide & Disinfectant Manufacturers at Bob-O'Link Golf Club, Chicago.

Fire at Chicago Sanitary

The two-story brick plant of Chicago Sanitary Products Co., Chicago soap manufacturer, was severely damaged by fire August 19th. An explosion of stored oils accompanied the fire, blowing out a large section of the roof and damaging the front of the building.

All the employes managed to escape uninjured. Charles R. Lichtenberg, president of Chicago Sanitary Products, estimated damage to the plant at \$15,000. Temporary headquarters have been established and orders will be handled as usual while repairs to the plant are being made.

Murray-Nickell Representative

Murray-Nickell Manufacturing Co., Chicago, announce that the Benowitz Chemical Co., Burlington, Iowa, will represent them in the state of Iowa and will carry a full line of M-N products in stock there.

Mrs. Varley in England

Mrs. James Varley, wife of James Varley of Baird & McGuire, Inc., St. Louis, and herself active in the affairs of the firm, sailed for a month vacation in England on August 22 from New York. She is a native of England and will visit relatives abroad. Mr. Varley was in New York to see her off.

Lawsons Home From Europe

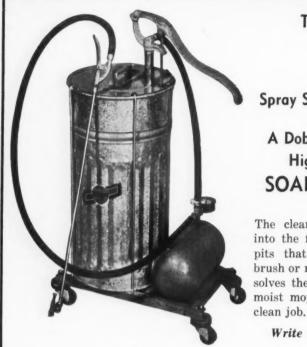
Mr. and Mrs. J. H. Lawson, accompanied by their two sons, arrived in Chicago, August 16th, after an extended European trip. Mr. Lawson, who is an executive of the Federal Varnish Co., Chicago, reports having had a most enjoyable trip.

To Distribute Sanitary Supplies

Great Eastern Corp., 717 North Eutaw Street, Baltimore, has been formed to distribute deodorants and soaps. Thomas E. Noonan, George O. Blome and Martin W. Seabolt are the principals.

Sentry Appoints F. T. Day

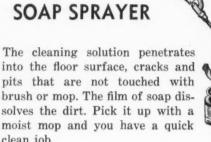
Sentry Products Co., Boston, manufacturer of insecticides, has appointed Frank T. Day, Inc., of Boston, as merchandising counsel. Paul R. Bishop will handle the account.



PORTABLE SOAP

SCRUBBING

Spray Soap or Cleaner
WITH
A Dobbins Superbilt
High Pressure
SOAP SPRAYER



Write NOW for Descriptive

Dobbins Manufacturing Co.
Dept. B North St. Paul, Minn.



2 or 3 GAL. CAPACITY EASY

TO

Federal, State, Municipal, and many industrial and private institutions specify deodorized base insecticides.

To meet all requirements, and for unrestricted use, deodorized base should be used in your insecticide.

We recommend

NONODR

The completely deodorized base for liquid insecticides.

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PRICED RIGHT

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11 West 42nd Street

New York, N. Y.

Sole Agents

BRADFORD PENN REFINING CORP.

Clarendon, Penna.

Blames Manufacturers for Faulty Specifications

Allen T. Rooch, vice-president of the Interstate Sanitation Co., Cincinnati, in a communication to Soap, lays the blame for many faulty and ridiculous specifications for government and state requirements of insecticides and other sanitary products on the doorstep of manufacturers in the industry. He states:

"Articles deriding government specifications on insecticides and similar products in the insecticide and disinfectant field seems to me just a little hypocritical. In all conscience, how can we in the insecticide industry condemn government buyers or private buyers when probably the bulk of those in the industry itself are engaged in the daily pursuit of misinforming buyers, deliberately and intentionally? I have yet to find an instance of misleading or impossible specifications set up by any buyer, either of a public or private agency, in which those specifications were not given to him by some manufacturer or so-called manufacturer. By manufacturing, I include people like ourselves who purchase pyrethrum and raw materials and merely mix them in the manufacturing process. It still requires knowledge for correct selection of raw materials, which is no mean task in the manufacture of either disinfectants or insecticides.

"Until the bulk of the insecticide and disinfectant industry develops a willingness to inform themselves so that they in turn can properly inform buyers, I believe we will find a steady stream of ridiculous specifications.

"You recently published a letter from the purchasing agent of an Ohio county. Having been in constant and close touch with this gentleman when he was attempting to draw up specifications (incidentally, these specifications were those to which our insecticide has steadfastly conformed), I know some-

thing of what he was up against. About ninety per cent of those seeking to supply his requirements of insecticide made a big issue of their own private and secret formula. Only two would divulge their formulas, and one of these two attempted to secure an initial order as a quid pro quo for divulging his formula. When the formula was finally divulged, it was found to call for ten per cent less pyrethrins than a good insecticide should have.

"It would seem to me that, if through some cooperative method, buyers could be reasonably well educated on the subject of disinfectants, insecticides, and kindred products, that sellers would have to educate themselves if they wished to continue in business.

"You may be interested in this incident, which occurred in about 1932. A certain buyer for one of our largest national manufacturing concerns told us that they had been using a coefficient two coal-tar disinfectant. We explained that a higher coefficient, if used properly, would be less expensive and they ordered a five-gallon sample, for which they paid. About two weeks later we received a letter from them stating that they were unable to conclude that our disinfectant was stronger than what they had been using. We had shipped them a coefficient four coaltar disinfectant. You can easily imagine our surprise at receiving this comment from them, and when we questioned them as to which method of testing they had used (the Rideal-Walker, the Reddish, and the H. L. method were all then in use), they replied that they knew nothing of such methods, but had merely made a 'practical' test in their Materials Testing Division. We were never able to satisfactorily learn just what that did mean. At any rate, they continued to buy the coefficient two product, and on the basis of their

annual consumption, they could have saved well over \$150.00 a year by purchasing a coefficient four, with even greater savings if a higher coefficient were purchased.

"The point of this incident is that buyers, even of large quantities of disinfectants, often do not attach sufficient importance to their methods of purchasing disinfectants and insecticides to exercise a care in purchasing comparable to that they normally exercise in the purchase of pencils, wrapping paper, and twine, and similar small expense items

"While, of course, legislation cannot put character in business men who do not have it to begin with, I sometimes wonder if it would not be a good thing for the industry if we had similar requirements for entrance into the disinfectant business to those we have for lawyers, doctors, insurance men, dentists, etc?"

Steam Sprayer Patent

An insecticide claimed to have the diffusing properties of a gas consists of the pyrethrum product resulting from atomizing a 1 per cent solution of the active principle of pyrethrum in kerosene, with steam of a mass from 1 to 8 times that of the solution. The solution is introduced into the steam jet and the mixture of steam and solution projected in the uncondensed state into the air under atmospheric conditions. The O. & W. Thum Co. Canadian Patent No. 359,106.

Derris from Belgian Congo

Analyses were made of both the stems and roots of samples of derris from the Belgian Congo. The rotenone and total-ether-extract contents of these samples were similar to those obtained on samples of derris from the Dutch Indies. The stems are of little interest as sources of rotenone. The ether extracts contain not only rotenone but also toxicarol, degueline and tephorsine. E. Castagne. IV Congr. intern. tech. chim. ind. agr. Bruxelles 2, 313-22.



MANY of the processes employed in the refining of coal tar products have been developed by the Koppers companies. A competent technical staff is constantly at work to introduce further process refinements and to insure the high quality of all Koppers products. The Koppers laboratories are abreast of all new developments in the field of coal tar products. Their services are at your command.

TAR ACIDS
CRESOL, U. S. P.
PHENOLS
CRESYLIC ACID
98% to 100% STRAW COLOR

TAR ACID OILS
NEUTRAL HYDROCARBON OIL

(For construction and maintenance, Koppers also produces: Roofing, Waterproofing, Dampproofing, Creosote, Tar Base Paints and Coatings, and Tarmac for driveways, roads, pavements, etc.)

KOPPERS PRODUCTS COMPANY

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Offices: New York, Boston, Providence, Chicago, Birmingham Plants:

Birmingham, Ala.; Buffalo, N. Y.; Chicago, Ill.; Follansbee, W. Va.; Fort Wayne, Ind.; Hamilton, O.; Kearny, N. J.; Milwaukee, Wis.; New Haven, Conn.; Providence, R. I.; St. Paul Minn.; St. Louis, Mo.; Swedeland, Pa.; Utica, N. Y.; Youngstown, O.

HUDSON

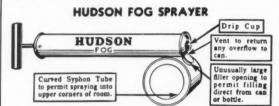


Just before the battle, Mother: How Are You Going to Aim That Spray?

Whether this turns out to be a complete insect massacre or just another skirmish depends upon how well the housewife uses your product. If she aims her spray horizontally or down, she's merely sniping. But if she turns a full barrage on the ceiling, there won't be a living insect in the room within 5 minutes. It's up to you—and us—to train her in the use of household insecticides.

Your insecticide is on the firing line!

Arm your customers with Hudson Fog Sprayers—tell them to spray UP—NOT DOWN—and you needn't worry about results. Hudson Fogs turn spray oils into the death-dealing vapor that goes billowing to the ceiling and kills every insect in the room as the blanket of mist settles toward the floor. It's the perfect insect-fighting weapon for household use. Note these features:



The Hudson merchandising department can give you some valuable assistance to build distribution and repeat business. It costs you nothing; obligates you in no way. Why not write us today?

H. D. HUDSON MFG. CO. 589 E. ILLINOIS ST. CHICAGO, ILL.

Cuban Disinfectant

Situation Deplorable

Diluted, adulterated, and useless coal-tar disinfectants are being made and sold widely in Cuba, according to advices received from C. C. Baird, president of Baird & McGuire, Inc., Holbrook, Mass. Under the law in Cuba, the use of coal-tar disinfectants is compulsory under certain conditions, but it seems that most anything with a strong coal-tar odor passes as disinfectant. Mr. Baird states in part:

"As you have probably heard, the disinfectant business in Cuba is in a rather deplorable condition. I understand that there is a law in Cuba requiring the use of coal-tar disinfectant. (They call it 'creolina' down there.) The ordinary purchaser knows the material as having a strong pungent odor of coal-tar, and that it turns white in water. As far as its use as a disinfecting material, but little attention is paid.

"Cuban distributors buy, as a general thing, a so-called 'concentrated disinfectant' which can be diluted with water from one to two times, and still remain black. If this is accomplished, then nothing else matters, apparently. The so-called 'concentrated disinfectant' has a phenol coefficient of 2 plus when shipped from here, so you can readily understand that when diluted to the limit with water, as a disinfectant the material is pretty nearly nil

"In the last year or two we have detected a call for higher type disinfectants from Cuba, and it may be that either the people themselves or the authorities are coming to realize that they are throwing their money away, and also deceiving themselves in buying this diluted disinfectant."

We have a good friend in Havana who wrote us a few days ago about conditions there, and I quote from his letter: "You are aware that in the past 10 or 12

years a small amount of coal-tar disinfectant (creolina) has been manufactured here, but perhaps you are not posted on last 2, 3 or 4 years development along this line. There are now 15 to 20 manufacturers, all sizes, some making as little as a few drums at a time and only spasmodically, others working more or less constantly. Several of the paint manufacturers also make disinfectant due to fact that the hardware trade all sell this item, so that it goes along with paint sales. Further, we have here bottlers of Javelle waterbleach who sell in push carts on the streets to every Tom, Dick, and Harry, and they have gone into 'creolina' manufacture and bottling. They carry along with this bottled muriatic acid. These three items give them an entree into every house, store, cafe, warehouse, etc. You will admit this is pretty stiff competition, and manufacturing and distributing costs are cut to the bone and especially so when you consider the type of individuals in that line.

"This cheap disinfectant is sold in drums at 8, 9 to 12 dollars per drum of 50 gallons and yet more and more people go into the manufacture of it. Nothing is guaranteed as to quality except that it is all called 'bueno' (good). It makes a white emulsion and smells like creolina.

"Our hope has always been, that either the consumers themselves or through proper regulations disinfectants would have to be sold on a standard and guaranteed basis and it may be that some day such will be the case.

"Cuba is an excellent potential market for disinfectant of the coal-tar type, but it is necessary to get the authorities alive to the fact that the people of Cuba are being 'gypped' right and left on their purchases of disinfectant, and it might be that some regulations might be established: say, requiring a statement of phenol coefficient on labels, or proper dilutions, also a statement of the inert material (water)."

Sweeping Compound

To keep an abrasive sweeping compound damp, addition of calcium chloride is necessary. About 10 per cent is usually used dissolved in 20 per cent of water and mixed with 70 per cent of the abrasive body. This will keep the product adequately dampened at all times. Soap, Perjumery and Cosmetics 1936, 324.

Emulsion Floor Waxes

A water emulsion-type floor wax used in England is stated to be made up as follows:

Montan wax, bleached	10	parts
Paraffin	10	parts
Stearic acid	7 K	parts
Castile soap chips	6 j	parts
Potassium carbonate	3 1	parts
Turpentine	54 1	parts
Water	70 r	arts
Dissolve the potash and		
boiling water. The waxes	and	stearie
acid are melted in anoth	er pa	an and
heated to 200° F. The se	oap se	olution

acid are melted in another pan and heated to 200° F. The soap solution is then added with vigorous stirring. After the heat has been turned off, the turpentine is added with constant stirring. The finished product may be colored and is packed cold.

By the following formula carnauba wax alone or carnauba and other waxes can be emulsified in water.

Carnauba wa	ax						60	parts
Candelilla .							10	parts
Paraffin							20	parts
Stearic acid							10	parts
Triethanolan	ni	n	e		,	,	4	parts

in a large kettle and boiled gently, a temperature of 100° C. being maintained. In a separate steam-heated kettle the waxes are melted very carefully in order to avoid discoloration. The molten mass in then stirred briskly into the boiling soap solution until an even dispersion is obtained. Slow stirring is continued until the emulsion has cooled to room temperature, after which it is filled into containers. The emulsion is very stable and may be altered simply in consistency by varying the water content. George Collingridge. Manufacturing Chemist 7, 221-3 (1936).

BREUER'S TORNADO ELECTRIC SPRAYERS get you reorders because they are the most efficient and durable insecticide aprayers ever built. Supply your cus-tomers with the best.

The New Tornado Model 36

Automatic Time Switch-Volume Air Control One Gallon Capac-

ity. 1-3 H.P. G. E. C. MOTOR Universal Motor

Here is the finest sprayer ever built. Similar to the ADMSTARE MOZILE ADMSTARE MOZILE ADMSTARE MOZILE ADMSTARE MOZILE ADMSTARE MOZILE ADMSTARE MOZILE ADMSTARE ADMSTARE ADMSTARE ADMSTARE ADMSTARE ADMSTARE ADMSTARE ADMSTA me air control and adjust-able nozzle features, the new Model 36 will spray a big volume of insecticide great distances in finest gas formation.

The patented principle of heating and compressing material does the trick. Just I GALLON the sprayer you need for CONTAINER covering large distances and penetrating with the finest gas every possible source of insect existence.

Get the facts on this sprayer

before buying !



Also most complete line of electric sprayers to meet every spraying problem.



MODEL 54-1 QT. CAPACITY
It features an automatic time switch set at any point from 1 to 30 minutes—
sprays desired amount I to 39 minutes—
sprays desired amount without any attention whatever — automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits apraying one ounce every two to four minutes with either fine or heavy spray. MODEL 53 same as Model 54 except des not have automatic time switch.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8' to 10'. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20' of rub-



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18' to 20'. 1/3 H.P. G.E. Univery fine mist. Sprays 18' to 20'. 1/3 n.r. u.s. very fine mist. Norma Ball Bearings, 1 gallon metal versal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, ware-houses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.

862 Blackhawk Street Chicago, Ill. We do not sell insecticides, Our business is manufacturing sprayers.

Patented in U. S. A. and Foreign Countries

PYRETHRUM EXTRACT

odorless—stabilized

Two Concentrations 20 to 1

From direct imported flowers, we manufacture pyrethrum extracts of standard strength in deodorized petroleum base,-and stabilized against deterioration. These extracts are sold at prices competitive with ordinary extracts.

Other HAMMOND Products

Pyrethrum Flowers-Granulated ready for percolation. Rotenone Extracts-Standardized and stabilized against deterioration.

Rotenone-Pyrethrum Extracts-Various concentrates in combinations as required.

Ask us for further information.

HAMMOND

Paint & Chemical Co.

BEACON **NEW YORK**

New-

MIMOSA

for toilet soaps

A delightful refreshing perfume. We solicit your inquiries.



COMPAGNIE PARENTO. Inc.

CROTON-ON-HUDSON, N. Y.

NEW YORK CITY DETROIT LOS ANGELES SAN FRANCISCO

PORTLAND, ORE

Atlanta Supply House Moves

Withers Sanitary Supply Co., formerly located at 210 Bona Allen Building, Atlanta, has moved recently to 37 Houston St., N. E.

Penick Export Dept.

S. B. Penick & Co., New York, insecticidal raw materials and botanicals, have established a special export department to handle their increased business from abroad. Henry R. Webel heads the new department.

Heads NAIDM Committee

Clarence Weirich, C. B. Dolge Co., Westport, Conn., has been named chairman of the Sanitary Specialties Committee of the National Association of Insecticide and Disinfectant Manufacturers. He replaces Melvin Fuld of Fuld Bros., Baltimore, who has recently been appointed chairman of the Disinfectant General Committee.

Check Seaver Claims

Seaver Exterminating Systems, Chicago, operating a correspondence course of instruction in vermin extermination, has been required by the U.S. Federal Trade Commission to sign a stipulation to stop certain misleading advertising. Seaver will stop advertising that the founder of the system has "astounded America"; that students can earn up to \$15,000 a year; that the founder of the system has not had a failure in his 31 years experience; that rats will not come back within a year, or that the complete lesson material is sent to subscribers immediately upon receipt of the subscriptions, when such is not the fact.

Fines for Misbranding

The U. S. Food and Drug administration has levied another series of fines against manufacturers of misbranded and ineffective disinfectants over the course of the past month in its current drive to eliminate fraudulent and hazardous products. Haines Products Co., Carey, Ohio, was fined \$50 for shipping "H & D Health

Spray" which was found to be misbranded and adulterated, containing over 94 per cent of water, a fact which was not mentioned on the label. American Pharmaceutical Co., New York, was fined \$100 for shipping misbranded Cresol Compound, U.S.P. This product was found to contain glycerin and also to be made from phenols other than U.S.P. cresol. Spratt's Patent, Ltd., Newark, N. J., was fined \$150 on three misbranded products, "Spratt's" germicide, antiseptic germicidal flea soap and flea and insect powder. Bonide Chemical Co., Utica, N. Y., was fined \$50 for offering as safe for home use a product containing thallium sulfate. Exo-Nox Co., Cincinnati, was fined \$10 for offering for moth use a useless product.

Exterminators Continue Strike

The strike in the New York exterminating trade continues in its sixth week as this issue closes. Many employees have returned, it is reported, but others are still out pending final settlement of the points of difference. One group of employers, representing some twenty-five to thirty firms has signed with the union and accepted the closed shop. Another group, however, said to consist of 38 firms employing 312 men, has refused to accept the union's demand for a closed shop. No negotiations will be opened, this group advises, on any other basis but that of an open shop.

Represents M. M. & R.

Magnus, Mabee & Reynard, Inc., New York, essential oils and perfuming materials, have just announced the appointment of the G. B. Dean organization, drug distributors, as exclusive distributors for M. M. & R. products on the Pacific coast. Offices are maintained by the Dean organization at 246 Mission St., San Francisco, and at 401 East 3rd St., Los Angeles. Complete stocks of M. M. & R. products will be carried. P. C. Magnus, head of the Magnus organization, is now on an extended tour through the middle west and is spending considerable time at the new Chicago office.

Exterminators' Convention

The annual meeting of the National Association of Exterminators and Fumigators will be held at the Hotel Statler, Cleveland, October 26-28. H. K. Steckel of Columbus, Ohio, is general chairman, with R. W. Laing of Cleveland in charge of local arrangements. Among the speakers scheduled to address the group are: Dr. E. A. Back, Bureau of Entomology, U. S. Dept. of Agriculture, who will speak on moths and carpet beetles; Dr. Phil. W. Heerdt, who will talk on insect control methods in use in Europe; Prof. J. J. Davis, Purdue University, chairman of the Japanese Beetle Investigation, who will talk on the relationship of the entomologist to the commercial exterminator; and E. M. Mills, Bureau of Rodent Control, Amherst, Mass., who will talk on the rodent control measures of United States and Europe. The complete list of speakers will be announced later. L. W. McKenna heads the entertainment committee, with Mrs. R. W. Laing in charge of the activities planned for the ladies. The convention will close with the annual banquet and dance the evening of October 28th.

To Register Fumigators

- . -

Milwaukee health officials are meeting currently with representatives of the local fumigating trade to draw up an ordinance to govern future fumigation work. The immediate stimulus behind the movement comes from the death August 2nd of Miss Esther Radley who walked into her apartment while cyanide gas still remained in the building. Dr. John P. Koehler, Milwaukee City Health Commissioner, favors a system of registration instead of licensing, pointing out that licensing might give the public a false sense of security. The ordinance is to be submitted to the Milwaukee common council in September.

Oser Exterminating Moves

Oser Exterminating Co., Denver, Colo., formerly located at 304 University Building, is now in new quarters at 822 14th St.

Announcement STANDARD CONTROL INSECTICIDE

Now Ready!

THE Standard Control Insecticide, authorized to be made up and packaged for distribution by the National Assn. of Insecticide & Disinfectant Manufacturers is now ready for distribution to the industry at nominal prices.

Single bottles cost \$1.00 each plus postage.

Cases of 12 bottles, \$5.00 per case plus postage.

This new control standard is available to all firms or laboratories whether members of the Association or not.

All commercial insecticides should be tested against this control standard to determine their true relative merit. A supply of the control insecticide should be in every insecticide laboratory. You may be asked how your product compares with the Standard Control Insecticide.

Send orders, or inquiries for further information to

National Association of

INSECTICIDE & DISINFECTANT MANUFACTURERS

122 East 42nd Street

New York

New Fumigating Concern

A new company specializing in a fumigation system is the Bundy & Stock Manufacturing Co., 713 Central street, Kansas City. The proprietors are M. Glenn Bundy and H. M. Stock.

Grasselli Pest Control

A laboratory and greenhouse are under construction for Grasselli Chemical Co. at the du Pont experimental station, Wilmington, where in the future all pest control research work will be consolidated. The pest control research activities have been reorganized in the chemical department of the Grasselli Company, of which E. A. Taylor is director, and transferred from Cleveland to Wilmington. Research has been organized as a separate division with Dr. W. H. Tisdale in charge. Sales introduction of insecticides, fungicides, and other products developed in the new laboratory will come under the new products division of the Grasselli Company, Cleveland, of which E. B. Alvord is manager.

Phenolic Disinfectant

Phenolic compounds dissolved in glycerine or alcohol, have to be incorporated with soap in order to prevent separation on dilution with water. Too much soap should be avoided as it reduces disinfectant power. Recommended proportions are 1.25 parts by weight of neutral soap to 1 part by weight of phenolic derivative. The pH value of phenolic soap solutions with high bactericidal power should preferably be within the limits of 6.14 to 7.4, which means very close to neutrality. The quantity of phenol required for producing a trustworthy disinfectant is within the range of 6.2 to 6.5 per cent. Although individual phenolic compounds may be employed, mixtures are preferable. Examples are parachloro-meta-cresol, chlorothymol and chlorocarvacrol; chloroxylenol, parachlorophenol and chlorothymol; or brominated naphthols, para-chlorometa-cresol and chlorophenol. All perfumes imparting a refreshing odor to the preparations are suitable provided they do not alter the disinfectant character. Examples are rose, lavender, lilac, reseda or violet in the proportion of 1 to 1.2 per cent.

Part of the alcohol or glycerine and water are mixed, cooled, and the phenols dissolved in alcohol or glycerine added, then perfume. Distilled water is added to make up the desired weight. Solutions may be filtered immediately or after storage. A perfectly clear filtrate is desirable, which should remain clear at fairly low temperatures. Richard Neu. Manufacturing Chemist 7, 244 (1936).

Maryland Glass Head Dies

Philip I. Heuisler, president and chairman of the executive committee of Maryland Glass Corp., Baltimore, died suddenly, August 17th, at Franconia, New Hampshire, following a heart attack. Mr. Heuisler became associated with the Emerson Drug Co., maker of "Bromo-Seltzer". about 1890 and was with this concern until 1908 when Captain Emerson organized the Marvland Glass Corp. Mr. Heuisler headed this concern from its formation until the time of his death. At the death of Captain Emerson in 1931 he also became president of Emerson Drug

New Continental Acquisition

Continental Can Co., New York, completed arrangements Aug. 14th for purchase of the plant and assets of Wilkes-Barre Can Co., Wilkes-Barre. Pa. The new Continental unit includes a three-story can plant of approximately 104,000 sq. ft. The purchase price was reported to be \$450,000 plus the value of inventories.

Derris in the Garden

A folder captioned "The Use of Derris in Controlling Garden Insects" is currently being distributed by Texas Gulf Sulphur Co., Houston, Texas. Instructions are given as to how the derris should be applied to control various types of common garden insects.

White Crusader Moves

White Crusader Exterminating Co., formerly at 1400 Houston St., Fort Worth, Texas, has moved recently to 2304 West 7th St.

D & O Veteran Dies

Lewis Vreeland, who had been in the employ of Dodge & Olcott Co., New York essential oil house, from 1873 until last year, died Aug. 10, at the age of 81. After over sixty years of service he refused to consider pension until last year. He is survived by his wife, M. L. Vreeland of Freeport, L. I., a son, Walter J. Vreeland, and a daughter, Mrs. Florence V. Jansen.

Fuld Offices Moved

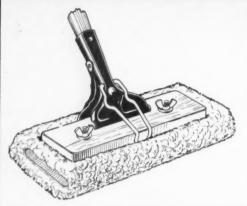
Fuld Bros., Baltimore, occupied their new three-story plant at Wolfe, Aliceanna and Durham Sts. early last month. Greatly improved manufacturing facilities are provided in the new building which also houses the Fuld offices and laboratories.

Pyrethrum on Roaches

When pyrethrum powder is applied to cockroaches, there is a latent period of 1½ minutes before a reaction is evinced. This period is independent of the amount of powder applied. The first reaction is one of great excitement, followed by partial and then by total paralysis. The time elapsing before the last two stages of reaction is influenced inversely by the pyrethrum concentration of the powder. George L. Hockenyos. J. Econ. Entomol. 29, 433-7 (1936).

Hercules Executive Changes

The Board of Directors of Hercules Powder Company has elected Charles A. Bigelow a vice-president and a member of the executive
committee. Mahlon George Milliken,
general manager of the cellulose
products department, has been elected
a director, and William Robert Ellis,
formerly assistant general manager
of the explosives department, has
been named general manager, taking
the place vacated by Mr. Bigelow.



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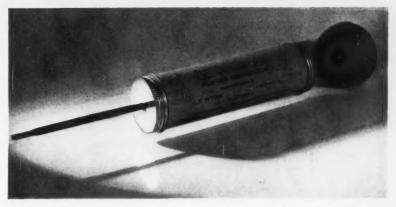
BUCKINGHAM

WAX CORP. Long Island City, N. Y.

Van Dam St. and Borden Ave.

Insecticide Act Rulings

A new series of rulings under the Insecticide Act has just been announced by the Food & Drug Administration, U. S. Dept. of Agriculture. Interstate Chemical Mfg. Co., Jersey City, N. J., has been fined \$200 for misbranding "Key Brand" ant killer, which was labelled as containing sodium arsenate when in fact it contained sodium arsenite. Eureka Vacuum Cleaner Co., Detroit, was fined \$100 for short weight cakes of "Eureka" sanitizing compound which were labeled 3 ounces but weighed only 2.82 ounces. Zoro Co., Chicago, was fined \$50 for misbranding "Zorite" disinfectant and cleanser which was found to consist completely of inert substances having no disinfectant action. A sentence of six months probation was imposed on Turk Drug Co. for selling as coefficient 4 liquor cresolis compositus an article which did not contain the ingredients specified in the pharmacopeia, and had a phenol coefficient of only 0.2. Acme Chemical Co., Milwaukee, was fined \$10 for misbranding of "Formokolene" and "Klomine Junior." Dixie Chemical Products Co., Birmingham, Ala., was fined \$50 for misbranding of "Creofectant." Odora Co., New York, was fined \$200 for misbranding of "Odora" moth cake, packet deodorant and moth destroyer, perfumed ball blocks, "Mothex" cedarized tablets and para moth pellets.



A new type powder blower with cardboard cylinder and rubber bulb being manufactured by J. R. Wynne of Cincinnati.

Fink Reports

J. H. A. Fink, manager of the export department of John Powell & Co., New York, who returned Aug. 20 from a six-months' business trip through a dozen foreign countries, including Australia and New Zealand, Java, Ceylon, India, Egypt, Greece, Turkey, and the Balkans, reports conditions as generally improved over those of a year ago when he last visited these countries. He states that general business is better, that there is less unemployment, more money being spent, and a wider buying of American products than in 1935.

While in Australia, Mr. Fink attended what he termed the greatest and most extensive Agricultural and animal Husbandry Exposition which he had ever seen. The exposition extended for a week at Sydney. Prize cattle, horses, agricultural products, and equipment from all parts of Australia were displayed. Insecticides and animal dips and sprays were among the products exhibited. Mr. Fink sees Australia as eventually one of the greatest markets in the world for agricultural equipment and materials. In his travels, he stated that he found household sprays and insecticides in more general use and in wider acceptance.

New Insect Spray

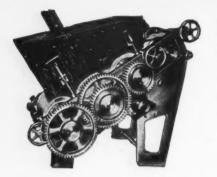
Edelman Co., Chicago, will shortly introduce "Secoline," a new synthetic insect spray. It is said to have proven effective against flys, waterbugs, ants, grasshoppers and other spiracle breathing insects, the action being a smothering one. It can be mixed with the usual petroleum base or with water, and can be sprayed as a stable emulsion. The knockdown is said to be somewhat slower than is obtained with pyrethrum or some other synthetics, but in the insects knocked down a high percentage of kill is effected. It is compatible with pyrethrum and other extracts to form mixtures for usé against certain horticultural pests.

Drug Trades Exposition

The Fifth Annual Drug Trades Exposition of the Drug Salesmen's Association of New York, will be held at the Grand Central Palace, New York, during National Pharmacy Week, October 20th, 21st, and 22nd.



The baseball team representing Anchor Cap & Closure Corp., L. I. City, N. Y., in the Commercial & Industrial League of Long Island City was at the latest report the only undefeated team in the league, having a record of eight games won and none lost.



The Rutschman Remill and the Rutschman Twin Screw Plodder make a combination difficult to improve on. mill has hard Quincy Granite rolls, the best material yet discovered to grind the color and perfume into toilet soap. The plodder is equipped with end cut-off device and electric removable heating unit with safety red light. No single screw plodder feeds as easily as the Rutschman twin screw.

Made in various capacities, electrically equipped with Morse silent chain, or pulley drive.

> Makers of fine soap machinery for nearly half a century



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the GAULIN Use two stage HOMOGENIZER

Don't be satisfied with putting out an ordinary product when a moderate investment in this machine will insure your getting a really outstanding product. The HOMO-GENIZER steps up disinfectant coefficients, by producing a better dispersion, makes a good polish that will not separate and is indispensable in the production of a worth while liquid floor wax. Send us a sample of your product. We will Homogenize it for you with no obligation.

Manton-Gaulin Mfg. Co. 19 Charlton St. Everett, Mass.

PHILADELPHIA CAMDEN.N.J. BOSTON, MASS.

L BROS-CHEMICA

Insecticide Labeling

The Department of Agriculture of the State of California has just issued regulations governing the registration and labeling of economic poisons which are defined to include "all substances which are intended for the control of insects, fungi, weeds, rodents, bacteria, and other pests detrimental to man or animals regardless of whether or not the substances are poisonous to human beings." A bulletin carrying the complete text of the regulations has just been mailed by the National Association of Insecticide & Disinfectant Manufacturers.

London Rodent Control

Professional rat-catchers are still extensively used in London in combatting rodent infestations, according to the annual report of Dr. W. M. Willoughby, medical officer of health for the city. Despite newer methods such as poisons, lethal gases, etc., the modern Pied Piper is still much in use. These rat catchers work at night and use no poison. Large numbers of their catch are taken alive. Little can be said of their methods, except that it appears highly satisfactory and the result of knowledge acquired by many years at the work. In the case of occasional infestation by one or two marauding rats, poisoning might be of use, the report states, but in infested premises it is not desirable. The black rat lives on the premises, and, if poisoned, becomes an expensive nuisance.

Atomizing Insecticide

A process for the control of Indian meal moth and cacao moth in warehouses is based on the penetrating power of a very finely atomized solution containing the active principles of pyrethrum. Its success depends to a great extent on the very fine degree of atomization of the spray solution. It is not enough to spray the room or warehouse, it is imperative that the spray should be broken up into a very finely divided condition, so that the correct type of atomizer has to be used. Too fre-



AT NOONDAY A DULL CHERRY RED, AND THE JEAS SHALL BE FROZEN OVER, AND THE ICE-CAP SHALL HAVE CREPT DOWNWARD TO THE EQUATOR FROM EITHER POLE, AND NO KEELS SHALL CUT THE WATERS, NOR WHEELS TURN IN THE MILLS, WHEN ALL CITIES SHALL HAVE LONG BEEN DEAD AND CRUMBLED INTO DUST, AND ALL LIFE SHALL BE ON THE VERY VERGE OF EXTINCTION ON THIS GLOBE, THEN, ON A BIT OF LICHEN, GROWING ON THE BALD ROCKS BESIDE THE ETERNAL SNOWS OF PANAMA, SHALL BE SEATED A TINY INSECT, PREENING ITS AN TENNÆ IN THE GLOW OF THE WORN OUT SUN, REPRESENTING THE SOLE SURVIVOR OF ANIMAL LIFE ON THIS, OUR EARTH, ~ A MELANCHOLY "BUG".

Reproduction of a framed picture recently sent out by the Specialty Division of the Sinclair Refining Company.

quently useful insecticides are wasted by inefficient application. *Manufacturing Chemist* **7,** 180 (1936).

Heads Pittsburgh Laboratory

A. R. Ellis, formerly vicepresident and a director of Pittsburgh Testing Laboratory, Pittsburgh, Pa., has just been elected president of this organization. Mr. Ellis graduated from Cornell University in 1905 and entered the employ of Pittsburgh Testing Laboratory that same year.

Termite Exterminating Co., formerly located at 826 Hickman Road, Augusta, Ga., has relocated at 842 Reynolds St.

Sur Wa Exterminator Co., Cincinnati, has moved its offices from 1573 Central Ave. to 103 Inwood Place.

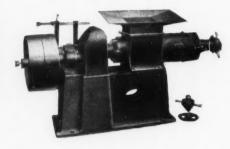
Special SOAP MACHINERY Completely Offerings of SOAP MACHINERY Rebuilt!



Small size fully automatic Jones



H-A SOAP MILL This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls.



Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.



toilet soap press. Capacity 150 to 200 small cakes per minute. 4 JONES AUTOMATIC A real buy at an attractively low combination laundry price. Has been completely re- plete and in perfect conditoilet soap presses. All combuilt in our own shops. tion.



2 Automatic Power Soap Cutting Tables

NEW**CRUTCHERS!**



This Newman brand new, all steel steam jacketed soap crutcher. Will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap in addition to other new soap machinery such as frames, cutting tables, etc. Send for complete list.

ADDITIONAL REBUILT SOAP MACHINERY

All used equipment rebuilt in our own shops and guaranteed first class condition.

H-A, 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.

and

Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals, ca. pacity.

Ralston Automatic Soap Presses. Scouring Soap Presses.

Empire State, Dopp & Crosby Foot Presses.

2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.

H-A 4 and 5 roll Steel Mills.

H-A Automatic and Hand-Power slabbers.

Proctor & Schwartz Bar Soap Dryers. Blanchard No. 10-A and No. 14 Soap Powder Mills.

J. H. Day Jaw Soap Crusher.

H-A 6, 8 and 10 inch Single Screw Plodders.

Allbright-Nell 10 inch Plodders.

Filling and Weighing Machine for Flakes, Powders, etc.

Steel Soap frames, all sizes.

Steam Jacketed Soap Remelters.

Automatic Soap Wrapping Machines. Glycerin Evaporators, Pumps.

Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.

Perrin 18 inch Filter Press with Jacketed Plates.

Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter

Day Grinding and Sifting Machinery. Schultz-O'Neill Mills.

Day Pony Mixers.

Gardiner Sifter and Mixer.

Proctor & Schwartz large roll Soap Chip Dryers complete.

Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.

Day Talcum Powder Mixers.

All types and sizes-Tanks and Kettles.

Ralston and H.A. Automatic Cutting Tables.

Soap Dies for Foot and Automatic Presses.

Broughton Soap Powder Mixers.

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National Filling and Weighing Machines.

Plant of The Holman Soap Co., Chicago is offered for sale. Completely equipped modern factory.

Send us a list of your surplus equipment—we buy separate units or complete plants.

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Positions Wanted

Salesman-Man with a number of years' experience and good record of real sales in calling on beauty parlor jobbers, drug jobbers and department stores, desires new connection. Has covered entire Eastern Seaboard. Knows soaps, shampoos, cosmetics, and beauty equipment. Now employed but will make change. Address Box 808, care Soap.

Chemist, PhD.—20 years' experience as research and chief chemist with leading firms in soaps, cosmetics and perfumes, desires position with progressive concern. Address Box No. 809, care Soap.

Pyrethrum-Salesman with 7 years' experience selling pyrethrum products for leading manufacturer, desires to make new connection in the insecticide industry in the same or associated fields. Clean record and best references. Address Box No. 806, care Soap.

Superintendent, factory manager wants position. Expert in kettle practice and manufacture of bar and toilet soaps, pure and filled flakes, high grade and cheap soap powders; glycerine recovery. Will also accept temporary position. Address Box No. 810, care Soap.

Soapmaker and Chemist, making all kinds fine toilet, laundry soaps, etc. Long experience; seeks permanent connection. Address Box 800, care Soap.

Capable Sanitary Chemical Specialist-15 years' experience manufacturing disinfectants, insecticides, soaps, polishes, deodorants, etc., desires position as superintendent or chemist. Temporary work will be considered. Single, age 42, college graduate. Available at once. Address Box No. 801, care Soap.

Soapmaker and Chemist-whose past record and experience qualify him for meeting highest technical requirements, desires steady employment with progressive concern. Address Box No. 802, care Soap.

Factory Superintendent-twelve years' experience nationally known hand soap company; full charge production, shipping, purchasing all materials. Address Box No. 797, care Soap.

Complete Soap Plant

of large, old, established eastern manufacturer of national reputation. Includes modern plant and all late type equipment. Produced bar and chip laundry soaps, toilet soap and soap powders. Write for full details,

REBUILT SPECIAL OFFERINGS

- 1-Chilling Roll Unit 4'
- Jones Automatic Pin Die Press.
- 2-Houchin-Aiken Empire State Foot Presses.
- 1-2 way Soap Cutting Table.
- 6-100 Lb. Soap Frames.
- 20-1200 Lb. Soan Frames.
- 1-10A Blanchard Mill.
- 1-65 Gal. Dopp Jacketed Kettle.
- 1-Soap Chipper.
- 1-Soap Powder Grinder-

- 4-Filter Presses-10" to 24" Square.
- 2-Jacketed Vertical Crutchers.
- 2-Vertical Jacketed 3000 Lb. Kettles.
- 6-Glass Lined Kettles,
- 50 to 3000 Gals. 1-Soap Slabber.
- 1-Proctor 4 Fan Soap Chip Dryer.
- 3-Plodders: 6", 10" and 12".
- 4-3 and 4 Roll Stone and Steel Roller Mills.

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- 4-5000 lb., 1500 lb., 1000 lb., Jacketed Vertical Crutchers.
- 2-1500 lb. Horizontal Crutchers. 1-Steel Soap Kettle, 5' dia. x 10' high.
- -Houchin 400 lb. Amalgamator. -Houchin Soap Plodders, 8" and 10".
- 2-Rucchmann 4-roll inclined Granite Mills, 18"x24", motor driven.
- -Broughton 1200 lb. Soap Powder Mixer.
- Tabor Soap Pumps.
- -Houchin 4 and 6-knife Chippers, 20".
- 1-Houchin Soap Foot Press.
- -Houchin 1500 lb. Power Slabber.
- 1-Houchin Hand Slabber.
- 2—Houchin 2-way Soap Cutting Tables. 1—Jones "A" Automatic Soap Press.

1-Proctor and Schwartz Soap Chip Dryer, steel frame, 7section, 1-cooling section, complete with 5-roll P. & S. Mill. Located on Pacific Coast.

MISCELLANEOUS-Soap Frames, Kettles, Mixers, Pony Mixers, Powder Fillers, Labelers, Wrappers, Tanks, Pumps, Boilers, etc. Send for Latest Bulletin.

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U. S. P. Cresol Compound
Coal Tar Disinfectants
Pine Oil Disinfectants
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Quality Colors

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TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty-send for samples of F. & S. greens and ambers.

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Import-Manufacture-Export



A HANDY BLOWER

that can be used in all positions saving powder and getting into the spots where powder KILLS all roaches and

insects.



Soap Sales—Man with many years' experience in sale of soaps in N. Y. Metropolitan area desires to represent Eastern manufacturers of toilet, laundry and flake soaps. Commission basis. Well-known among jobbers, chain buyers, etc. Address Box 756, care Soap.

Floor Waxes—Chemist, expert in manufacture of floor waxes,—also have much research data,—open for part or full-time work with manufacturer. Can handle all emulsion and emulsification problems. Address Box 755, care Soap.

Positions Open

Manufacturer of quality line of sanitary chemicals, soaps, cleaners, polishes, disinfectants, waxes, etc., has a splendid opportunity for a real sales representative calling on jobbers. Address Box No. 798, care *Soap*.

Wanted—Salesman calling on large direct users to handle quality line of No-Rub Wax, Metal Polish, Glass Cleaner, etc. on liberal commission basis. Address Box No. 795, care *Soap*.

A Prominent Manufacturer of liquid soaps, disinfectants, deodorizing cakes, etc., has an opening for a dependable sales representative. Address Box No. 804, care *Soap*.

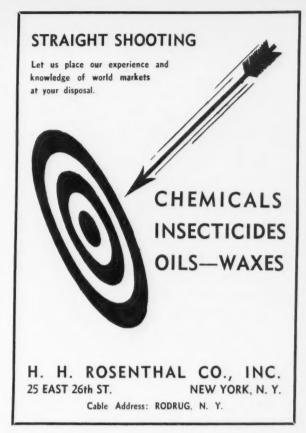
Wanted—Soapmaker—small soap plant producing two million pounds tallow chip soap, and two million pounds of tallow bar soap per year. Give full particulars, age, religion, schooling, experience, etc., with application. Address Box No. 805, care Soap.

Miscellaneous

Respirators, Goggles, Thermometers and Hydrometers for every purpose. Write for prices. General Scientific Co., 2620 N, 23rd St., Philadelphia, Pa.

Distributors—We are manufacturers of metal, silver, stove, furniture polishes and no-rub wax. Also complete line of Bar Room cleaning materials. These can be supplied in bulk or packaged under our or your own label which we supply. The Slick-Shine Co., Inc., Newark, N. J.

Office Space—Space in New York office available for agent of out-of-town firm. Private office with one-third time of stenographer and clerk experienced in work with soaps, shampoos, powders, toilet articles, etc. Ideal spot for establishing New York office at low cost. Write for further details to Box 807, care Soap.



SHAVING CREAM

TOOTH PASTE

In Bulk Or

Under Your Own Name in our special tubes and cartons. These are lithographed with a blank space for *YOUR* label. In any quantity from one gross up.

GEO. A. SCHMIDT CO.



36-238 West North Avenu Chicago.



SOP-O-ZON

DISPENSERS

35 MODELS TO CHOOSE FROM

Write for Catalogue

Serving the Soap Manufacturer and Jobber only—We do not sell to the consumer.

BOBRICK

MANUFACTURING CORPORATION

111-117 GAREY ST., LOS ANGELES 215 FOURTH AVE., NEW YORK CITY

G. H. WOOD & CO., LTD., Canadian Distributor, Toronto, Montreal.

Special Introductory Offer

See for yourself the simplest and at the same time the most satisfactory powdered soap dispenser yet developed. A sample dispenser in satin finish will be shipped postpaid for only 85c. Mirror high polish for 95c each.



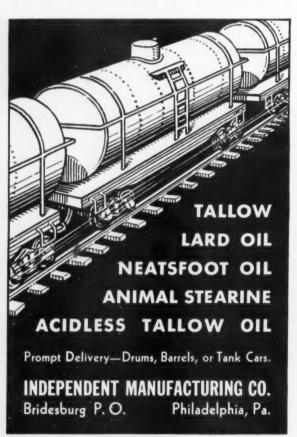
This new dispenser is sturdy and attractive, and at the same time foolproof, unbreakable and rustproof—eliminating complaints from users on these scores. It requires no special tools to install and can be adjusted easily to discharge various quantities of soap. Will not clog.

TO MEC

PRESTO MFG. CO.

4044 20th AVE. S.

MINNEAPOLIS





No-Rub Wax—Jobbers—you can buy your floor waxes, no-rub waxes, fly sprays, moth liquid, furniture polish, disinfectants, and other sanitary specialties from us to advantage. Either in bulk or packaged in any size container under your own label. Samples on request. (See one of our packaged products in advertisement of Continental Can Company on page 21) G. E. Specialty Company, 157 Quincy St., Brooklyn, N. Y.

Have you trouble with soap? Expert soap man will help you; any kind of soap: household, toilet, shaving, liquid, powder, paste, oil soap. Also analyses. Formulate new ideas. Address Box No. 799, care Soap.

Trade Mark for Sale—"Gardenaire" registered in U. S. Patent Office recently, (Class 6). Suitable for air perfumes, deodorizers, sprays, etc. Also applicable to toilet preparations. Price \$500 or make best cash offer. Box 1000, Little River, Florida.

For Sale—Formulas and Trademark Names—General Chemical Household Cleaning Powder Compound, 1-pound package and a Dairy Cleaning Powder in bulk. Address Box No. 803, care Soap.

Floor Brushes — We manufacture a very complete line. Catalogue sent upon request. Flour City Brush Company, Minneapolis, Minn., or Pacific Coast Brush Co., Los Angeles, Calif.

Valencia Pumice—Something new in American Pumice Stone; Lump and Ground. Its clean, light color will please you. Barnsdall Tripoli Corp., Seneca, Mo.

School Supply Houses — Distributors wanted—re-enforcement prevents broken brush handles—thousands in use proven successful. "Stik-Tite" Co., 315 Montgomery St., San Francisco.

For Sale—Modern up-to-date equipped famous soap and cosmetic factory in southern part of Germany. Will exchange for one in the United States. Address Box No. 796, care Soap.

Classified Advertising in Soap produces worth while results at nominal cost. Every business day in the month letters pass through the classified department on their way to users of space in this section of Soap. Do you need someone to fill a position? Are you seeking a new connection? Do you have some surplus machinery or raw materials to dispose of? Are you interested in establishing new sales agents? Do you want some additional lines to add to what you now have? No matter what you are looking for in the soap and sanitary products field this department can help. Try it!

T. G. COOPER & CO. INC. 47 North Second Street Philadelphia Import and Spot Lots of Cresylic Acid Commercial Olive Oil Olive Oil Foots Palm Oil Castor Oil Rapeseed Oil Japan Wax Caustic Potash Carbonate of Potash Bicarbonate of Potash 56



Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 138, for page numbers, "Say you saw it in SOAP."

ALKALIES

Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

American-British Chemical Supplies Aromatic Products, Inc. Compagnie Parento Dodge & Olcott Co. Dow Chemical Co. P. R. Dreyer, Inc. E. I. du Pont de Nemours & Co. Felton Chemical Co. Firmenich & Co. Charles Fischbeck & Co. Fritzsche Brothers, Inc. Givaudan-Delawanna, Inc. Magnus, Mabee & Reynard, Inc. Merck & Co. Monsanto Chemical Co. Norda Essential Oil & Chemical Co. Orbis Products Corp. Riviera Products Co. Schimmel & Co. George Silver Import Co. Solvay Sales Corp. A. M. Todd Co. Ungerer & Co. Van Ameringen-Haebler, Inc.

BULK AND PRIVATE BRAND PRODUCTS

Baird & McGuire, Inc.
Buckingham Wax Corp.
Chemical Supply Co.
Chicago Sanitary Products Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Flori Mothproofing Method
Franklin Research Co.
Fuld Bros.
E. A. Gerlach Co.
Harley Soap Co.
Koppers Products Co.
Kranich Soap Co.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
Uncle Sam Chemical Co.
T. F. Washburn Co.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American-British Chemical Supplies Columbia Alkali Co. T. G. Cooper & Co. Dow Chemical Co. E. I. du Pont de Nemours & Co. Eastern Industries
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Industrial Chemical Sales Co.
Industrial Chemical Co.
Mechling Bros. Chemical Co.
Mechling Bros. Chemical Co.
Miagara Alkali Co.
Philadelphia Quartz Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Standard Silicate Co.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid Oil, etc.)
American-British Chemical Supplies
Baird & McGuire, Inc.
Barrett Co.
T. G. Cooper & Co.
Innis, Speiden & Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

COLORS

Fezandie & Sperrle Pylam Products Co.

CONTAINERS and CLOSURES

Anchor Cap & Closure Corp. (Closures & Bottles)
Capstan Glass Co. (Bottles)
Continental Can Co. (Tin Cans)
Maryland Glass Corp. (Bottles)
National Can Co. (Cans)
Salem Glass Works (Bottles)
Wilson & Bennett Mfg. Co. (Steel Pails and Drums)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co. Eagle Soap Corp. Fuld Bros. Palmer Products, Inc.

ESSENTIAL OILS

Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
Felton Chemical Co.
Firmenich & Co.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Riviera Products Co.
Schimmel & Co.
George Silver Import Co.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

PROFESSIONAL DIRECTORY

PEASE LABORATORIES, Inc.

Chemists, Bacteriologists, Sanitarians

39 West 38th Street New York

Food, Drug and Cosmetic Problems—Compliance with Official Requirements—Meeting New and Anticipated Competitions with Improved and New Products

STILLWELL AND GLADDING, Inc.

Analytical and Consulting Chemists

Members Association of Consulting Chemists and Chemical Engineers

130 Cedar Street

New York City

KILLING

strength of Insecticides

by PEET GRADY METHOD

(Official I. & D. code method) and PYRETHRINS in PYRETHRUM FLOWERS (by Gnadinger's Method)

We vaised and killed more than 1 million flies in the last 2 years
ILLINOIS CHEMICAL LABORATORIES, INC.
75 E. WACKER DRIVE CHICAGO, ILL.

CONSULTING CHEMIST

PLANT DESIGN INSTALLATION ANALYSES FORMULAS
PLANT OPERATION
NEW PRODUCTS DEVELOPED

SOAPS and COSMETICS

20 Years Experience

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7418 Cottage Grove Ave. CHICAGO, ILL.

Entomological Testing Laboratories, Inc.

We offer you a medium for purchasing insecticides on an intelligent basis.

Entomological testing by the Peet-Grady method, and chemical examination of insecticides are available.

114 E, 32nd St.

New York, N. Y.

Skinner & Sherman, Inc.

246 Stuart Street, Boston, Mass.

Bacteriologists and Chemists

Disinfectants tested for germicidal value or phenol co efficient by any of the recognized methods.

Research—Analyses—Tests

H. A. SEIL, Ph.D

E. B. PUTT, Ph.C., B.Sc.

SEIL, PUTT & RUSBY, INC.

Analytical and Consulting Chemists

Specialists in the Analysis of Pyrethrum Flowers, Derris Root,
Barbasco, or Cube Root—Their Concentrates
and Finished Preparations

ESSENTIAL OILS
16 East 34th Street, New York, N. Y.

APPLIED RESEARCH LABORATORIES, Inc.

DAYTON, N. J.

Bacteriology, Pathology, Physiology

Deodorant Coefficients (Packchanian Method)
Disinfectant and Insecticide Tests
Toxicity and Skin Irritation Tests
Bioassays and Other Animal Studies

JOHN H. WRIGHT

Technical Consultant

INSECTICIDES—DISINFECTANTS SANITARY SPECIALTIES

Research—New Products—Packaging—Formula Labeling under Federal and State Laws

122 East 42d St., New York

CAledonia 5-6095

SOAPS — DETERGENTS

Analyses Consultation Development Formulas

HochstadterLaboratories

254 West 31st St.

New York City

FOSTER D. SNELL, INC.

Chemists—Engineers

Every form of Chemical Service

305 WASHINGTON STREET

BROOKLYN, N. Y.

LLOYD A. HALL

Analytical and Consulting Chemist

Development, Improvement and Analysis of Soaps, Disinfectants, Polishes, Cosmetics, Drugs, Oils.

Bacteriological Tests for Germicidal Value and Efficiency.

Formulas—Research

1415 West 37th Street

Chicago, Ill.

RAW MATERIAL AND EQUIPMENT GUIDE

(Continued from page 134)

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MACHINERY

Ertel Engineering Corp. (Filters, Mixers, Bottle Fillers)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Manton-Gaulin Mfg. Co. (Homogenizer)
Mixing Equipment Co. (Mixers)
Package Machinery Co. (Packaging)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)
Western Precipitation Co. (Multiclones)

MACHINERY, USED

Consolidated Products Co. Newman Tallow & Soap Machinery Co. Stein-Brill Co. Stein Equipment Corp.

MISCELLANEOUS

American Colloid Co. (Bentonite)
American Standard Mfg. Co. (Wax Applicator)
Anchor Cap & Closure Corp. (Metal Caps)
T. G. Cooper & Co. (Waxes)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
General Chemical Co. (Fluorides)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants and Waxes)
Merck & Co. (Lanolin)
Pylam Products Co. (Lathering Agent)
Rochester Germicide Co. (Vending Machines)
Rohm & Haas Co. (Insecticide Base)
Sennewald Drug Co. (Rat and Roach Paste)

OILS AND FATS

T. G. Cooper & Co.
Eastern Industries
Independent Mfg. Co.
Industrial Chemical Sales Co.
Leghorn Trading Co.
Michel Export Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Orbis Products Corp. (Stearic Acid)
Wecoline Products Co.
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING COMPOUNDS

Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
Felton Chemical Corp.
Firmenich & Co.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Riviera Products Corp.
Riviera Products Co.
Schimmel & Co.
George Silver Import Co.
Ungerer & Co.
Van Ameringen-Haebler. Inc.

PETROLEUM PRODUCTS

Atlantic Refining Co. O'Connor & Kremp Sherwood Petroleum Co. L. Sonneborn Sons.

PYRETHRUM AND DERRIS PRODUCTS

Insect Flowers and Powder, Pyrethrum Extract, Derris Products

Derris, Inc.
Hammond Paint & Chemical Co.
S. B. Penick & Co.
R. J. Prentiss & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
Murray & Nickell Mfg. Co.
John Powell & Co.
H. H. Rosenthal Co.
Sherwood Petroleum Co.

SOAP DISPENSERS

Bobrick Mfg. Co. Clifton Chemical Co. Eagle Soap Corp. Fuld Bros. Palmer Products Presto Mfg. Co.

SODIUM SILICATE

General Chemical Co. Grasselli Chemical Co. Mechling Bros. Chemical Co. Philadelphia Quartz Co. Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co. Dobbins Mfg. Co. Fumeral Co. Getz Exterminators Hudson Mfg. Co. Lowell Sprayer Co.

TRI SODIUM PHOSPHATE

General Chemical Co. Grasselli Chemical Co. Monsanto Chemical Works H. H. Rosenthal Co. Warner Chemical Co.

WHITE COCONUT OIL

AND

PALM OIL FATTY ACIDS

ALSO COMPLETE LINE OF VEGETABLE AND ANIMAL OIL FATTY ACIDS

WECOLINE PRODUCTS, Inc.

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NEW YORK

MULTICLO NE DUST CONTROL SYSTEMS

As Production Equipment

Multiclones collect dust from stack and kiln gases, but are equally efficient in process operations where the product is a fine powder. Simple, compact, completely flexible as to capacity, all-metal, fireproof and easily installed, Multiclones are economically collecting a wide variety of commercial products in many different industries. New Bulletin ready.

WESTERN PRECIPITATION COMPANY

1016 W. 9th St., Los Angeles, Calif. • 405 Lexington Ave., New York Precipitation Co. of Canada, Ltd., Dominion Square Bldg., Montreal COTTRELL ELECTRICAL PRECIPITATORS . . PEBBLES SPRAY DRYERS Specialists in Dust and Fume Control for more than a quarter century.

Classified Advertising ~

Brings excellent results at a minimum cost. Rates are only 10c per word with a minimum charge of \$2 per issue (position wanted advertisements accepted at half rates). Whether you have some surplus equipment or material for sale, have a position open or are looking for a new connection, etc., use space in the Classified Section of Soap. It will place you in touch with the entire soap and sanitary products industry.



We announce development of new type soap

PYLAKLORS

They have good fastness to alkali, light, tin, ageing.

The following shades are already available:

Bright Green Dark Brown
Olive Green Palm Green
Yellow Golden Brown

True Blue Violet

It will pay you to send for testing samples.

PYLAM PRODUCTS CO., INC.

Manufacturing Chemists, Importers, Exporters
799 Greenwich St. New York City

Cable Address: "Pylamco"

INDEX TO ADVERTISERS

For product classification see pages 134 and 136

*For further details see announcement in 1936 SOAP BLUE BOOK

*American-British Chemical Supplies 60	Kranich Soap Co
American Colloid Co	*Leghorn Trading Co
Anchor Cap & Closure Corp	Lowell Sprayer Co 114
Applied Research Laboratories	Magnus, Mabee & Reynard, Inc 46
*Aromatic Products, Inc	Manton-Gaulin Mfg. Co
Atlantic Refining Co	Manufacturing Chemist Aug. Maryland Glass Corp. June
*Baird & McGuire, Inc	*McCormick & Co
*Barrett Co	McLaughlin Gormley King Co
Bobrick Mfg. Co. 132 Books 72	Mechling Bros. Chemical Co
*Breuer Electric Mfg. Co	Merck & CoJune
Buckingham Wax Corp	Michel Export Co. 133 Mixing Equipment Co. June
Capstan Glass Co	Monsanto Chemical Co
Leland C. Cates	Murray & Nickell Mfg. Co
Chemical Supply Co	Murray Oil Prods. Co
Chicago Sanitary ProductsAug.	*National Can Co
*Clifton Chemical Co. 6 *Columbia Alkali Co. 20	*Newman Tallow & Soap Machinery Co 128
Compagnie Parento	*Niagara Alkali Co
*Consolidated Products Co	Norda Essential Oil & Chemical Co
*Continental Can Co	O'Connor & Kremp Co
T. G. Cooper & Co	*Orbis Products Corp
*Davies-Young Soap Co	Package Machinery Co. 42 Palmer Products Aug.
Davison's Textile Blue Book	*Pease Laboratories
Derris, Inc	*S. B. Penick & Co 85
Dodge & Olcott Co	Philadelphia Quartz Co
*Dow Chemical Co	*John Powell & Co
P. R. Dreyer, Inc	Presto Mfg. Co
*E. I. Du Pont de Nemours Co 4	*Proctor & Schwartz, Inc
*Eagle Soap Corp 87	*Pylam Products Co
Eastern Industries 56	*Reilly Tar & Chemical Co
*Electro Bleaching Gas Co	Riviera Products CoJuly
*Ertel Engineering Corp 58	Rochester Germicide Co
*Federal Varnish Co	*Rohm & Haas Co
*Felton Chemical Co	Salem Glass Works
Fezendie & Sperrle	*C. G. Sargent's Sons CorpAug.
Firmenich & Co	Schimmel & Co., Inc., 58
Charles Fischbeck & Co	George A. Schmidt & Co 131
Franklin Research Co July	Sed, Putt & Rusby 135
Anthony J. FriesAug.	Sennewald Drug Co. June Sherwood Petroleum Co
Fritzsche Brothers, Inc 84	George Silver Import Co
*Fuld Brothers	*Skinner & Sherman
Fumeral CoJuly	*Foster D. Snell
*General Chemical Co	Soan Perfumery & Cosmetics Trade Review
E. A. Gerlach Co	*Solvay Sales Corp. 12 *L. Sonneborn Sons 78
*Getz Exterminators	Standard Silicate Co
*Givaudan-Delawanna, Inc	*Stein-Brill Corp Inne
Grasselli Chemical Co	Stein Equipment Corp
Lloyd A. Hall	Stillwell & Gladding
Hammond Paint & Chem. Co	*Stokes & Smith Co
Harley Soap Co. 130 Hercules Powder Co. 13	A. M. Todd Co. Aug. *Jos. Turner & Co. 40
Hochstadter Laboratories	Uncle Sam Chemical Co
Hooker Electrochemical Co	*Ungerer & Co Front Cover
Houchin Machinery Co 74	*Van Ameringen-Haebler, Inc
Huber Machine Co	
Hudson Mfg. Co	*Warner Chemical Co
Illinois Chemical Labs. 135 Independent Mfg. Co. 132	Wecoline Products Co
Industrial Chemical Sales Co	Welch, Holme & Clarke Co 60
Innis, Speiden & Co	Western Precipitation Co
International Nickel Co	White Tar Co 124
R. A. Jones & Co	Wilson & Bennett Mfg. Co. 52 Windsor Wax Co. 130
Koppers Products Co	John H. Wright
	2 135

